



# PUBLIC NOTICE

US Army Corps  
of Engineers  
New York District  
Jacob K. Javits Federal Building  
New York, N.Y. 10278-0090  
ATTN: Regulatory Branch

In reply refer to:

Public Notice Number: NAN-2008-00732-EJE

Issue Date: July 18, 2008

Expiration Date: August 18, 2008

To Whom It May Concern:

The New York District, Corps of Engineers has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344).

APPLICANT: Hudson Transmission Partners, LLC  
501 Kings Highway, Suite 300  
Fairfield, CT 06825

ACTIVITY: Discharge of fill material for cofferdam installation and new Converter Station; installation of a new buried electric transmission line.

WATERWAY: Lower Hudson River

LOCATION: Ridgefield, Bergen County, New Jersey, and the Borough of Manhattan, New York County, New York

A detailed description and plans of the applicant's activity are enclosed to assist in your review.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND MAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity.

Any person may request, in writing, before this public notice expires, that a public hearing be held to collect information

necessary to consider this application. Requests for public hearings shall state, with particularity, the reasons why a public hearing should be held. It should be noted that information submitted by mail is considered just as carefully in the permit decision process and bears the same weight as that furnished at a public hearing.

Our preliminary determination is that the activity for which authorization is sought herein is not likely to affect any Federally endangered or threatened species or their critical habitat. However, pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the District Engineer is consulting with the appropriate Federal agency to determine the presence of and potential impacts to listed species in the project area or their critical habitat.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act (Public Law 104-267), requires all Federal agencies to consult with the National Oceanic and Atmospheric Administration Fisheries Service (NOAA/FS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed work, fully described in the attached work description, could cause the disruption of habitat for various life stages of some EFH-designated species as a result of a temporary increase in turbidity during construction. However, the New York District has made the preliminary determination that the site-specific adverse effects are not likely to be substantial because it is expected that fish populations would avoid the small area of disturbance. Further consultation with NOAA/FS regarding EFH impacts and conservation recommendations being conducted and will be concluded prior to the final decision.

Based upon a review of the latest published version of the National Register of Historic Places, there are no known sites eligible for, or included in, the Register within the permit area. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

Reviews of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act and the applicant will obtain a water quality certificate or waiver from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to a permit decision.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. By this public notice, we are requesting the state's concurrence with, objection to, or waiver of the applicant's certification. No permit decision will be made until one of these actions occurs. For activities within the coastal zone of New York State, the applicant's certification and accompanying information is available from the Consistency Coordinator, New York State Department of State, Division of Coastal Resources and Waterfront Revitalization, Coastal Zone Management Program, 41 State Street, Albany, New York 12231, Telephone (518) 474-6000. For activities within the coastal zone of New Jersey State, the contact information is New Jersey Department of Environmental Protection, Coastal Management Program, 401 East State Street, Trenton, New Jersey 08625. Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.

In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

- New York State Department of Environmental Conservation
- New Jersey Department of Environmental Protection

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact this office at (917) 790-8420 and ask for Stacey M. Jensen.

JUL 18 2008

For more information on New York District Corps of Engineers programs, visit our website at  
<http://www.nan.usace.army.mil>

  
18 JUL 2008  
R.L. Richard L. Tolmer  
Chief, Regulatory Branch

Enclosures

## WORK DESCRIPTION

The applicant, Hudson Transmission Partners, LLC, has requested Department of the Army authorization for the installation of a new buried electric transmission cable in the Hudson River, from the Towns of Ridgefield and Edgewater, Bergen County, New Jersey to the Borough of Manhattan, New York County, New York.

The work would involve: Construction of a new back-to-back Alternating Current (AC)-Direct Current (DC)-AC Converter Station in Ridgefield, New Jersey and installation of a new 230 kilovolt (kV) AC link to the nearby existing PSE&G Bergen Substation. From the Converter Station a new 345 kV AC electric transmission cable system would be routed in an overland underground configuration from Ridgefield to Edgewater, NJ where it would then cross the Lower Hudson River estuary in a buried submarine cable configuration to make landfall at Piers 92-94 at the Midtown Manhattan waterfront where it would then interconnect via upland underground cable to the existing Con Edison West 49<sup>th</sup> Street Substation. The 345 kV cable would have the capacity to transmit 660 megawatts (MW) of power. The cable would be buried at a minimum depth of 15 feet below present river bottom within the Federal Navigation Channel, and at a minimum depth of 10 feet below present river bottom outside the Federal Navigation Channel. The authorized Federal Navigation Channel controlling depth is 48 feet at the proposed location.

The preferred cable route would originate in Ridgefield, NJ at the Bergen Substation and then be routed via horizontal directional drilling (HDD) to the Converter Station property at 1 Railroad Avenue. Then, the underground cable system would exit the Converter Station along the center of Railroad Avenue. The cable would then be routed south towards the end of the Avenue, and then be routed south along the CSX railroad right-of-way (ROW). The cable would then travel east along the NYS&W railroad ROW, and then travel through the 92<sup>nd</sup> Street tunnel under the Palisades Sill. The cable would then cross under the New River Road in Edgewater, NJ to the Edgewater Commons Shopping center, and from there to the cofferdam location in the Hudson River where HDD operations would cease. This portion of the cable route is proposed to be 3.0 miles in length.

The submarine cable would be installed using hydraulic jet plow embedment. Jet plow embedment would allow for the laying and burying of the cables simultaneously to help ensure the placement of the cable system at the target burial depth with minimum bottom disturbance and with the fluidized sediment settling back into the trench. The submarine cable route would run east across the Weehawken-Edgewater Federal Navigation Channel. The route would then head south in New York State owned submerged lands to run along the New York side of the Lower Hudson River. The proposed cable route would cross over the existing deeper TRANSCO gas pipelines installed in the riverbed near NYC's West 77<sup>th</sup> Street. The route then would continue south out of the anchorage area downriver before reentering the Federal Navigation Channel at West 59<sup>th</sup> Street. The cable would make landfall in New York between the Passenger Ship Terminal Piers 92 and 94 from the cofferdam via HDD. This portion of the cable route is proposed to be 3.6 miles in length, of which approximately 0.3 miles are in New Jersey and 3.3 miles are in New York State.

The cable then proceeds via HDD east through the berth area under 12<sup>th</sup> Avenue to West 52<sup>nd</sup> Street, where it will transition to upland. The upland cable route would continue east on W 52<sup>nd</sup> Street, south on 11<sup>th</sup> Avenue, west on W 51<sup>st</sup> Street, and then south on 12<sup>th</sup> Avenue to the entrance of the Con Edison W 49<sup>th</sup> Street Substation. This portion of the cable route is proposed to be

approximately 0.47 miles in length.

The cofferdams would be constructed using a barge-mounted clamshell bucket to excavate approximately 1,260 cubic yards (CY) each, to total 2,520 CY, of sediment from the New York and New Jersey cofferdam areas. The cofferdams measure approximately 30 feet by 100 feet in size. Steel sheet piles would be driven into the sediment to construct the cofferdam walls. The excavation pit would be backfilled with imported clean backfill material to restore the River bottom to pre-construction grade.

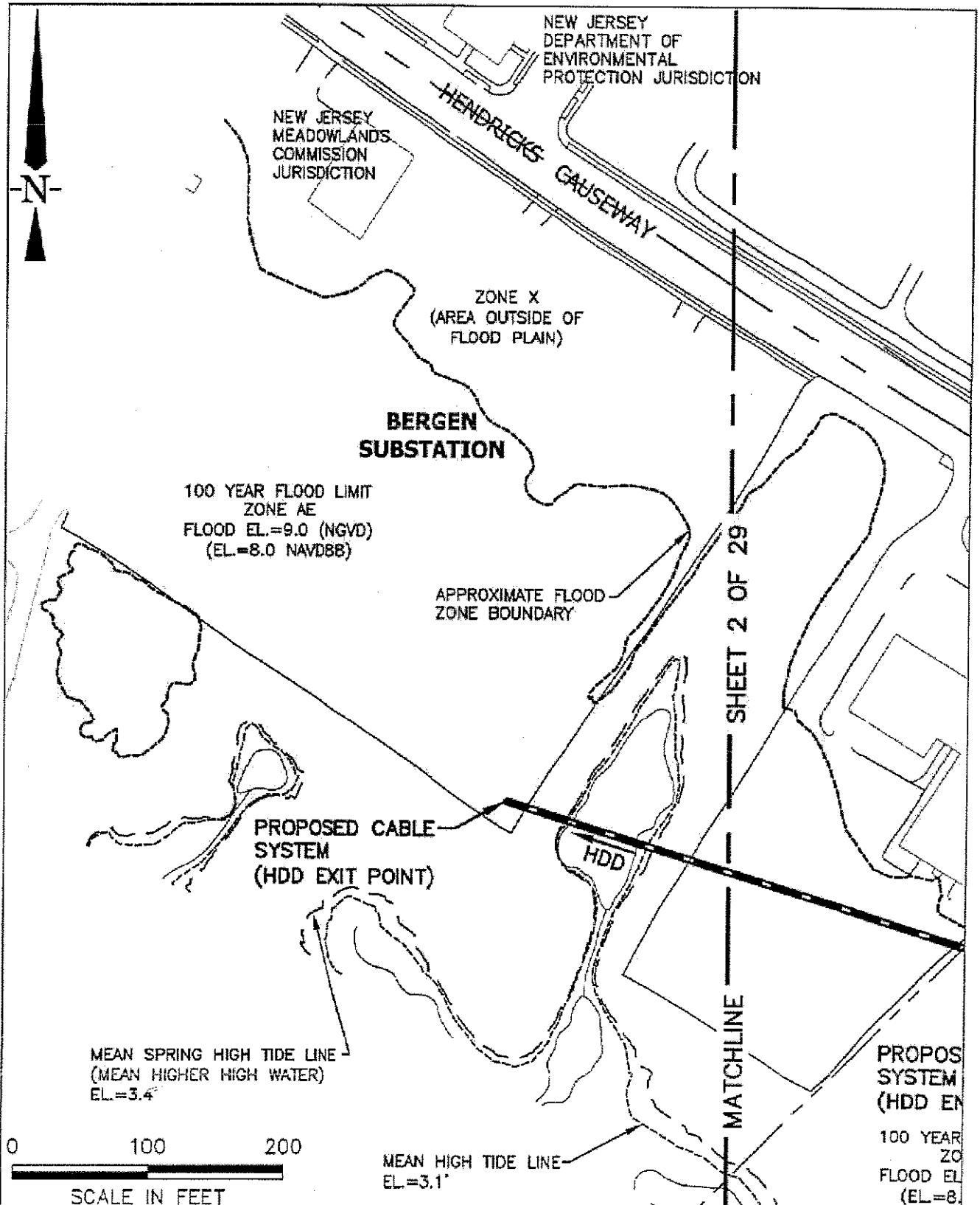
The proposed Converter Station would have approximately 0.94 acre of permanent impacts to wetland waters of the U.S. in the New Jersey Meadowlands. The proposed land cable route would have approximately 0.26 acre of temporary impacts, and 0.01 acre of permanent impacts to wetland waters of the U.S. The proposed submarine cable route, including cofferdams and jet plow trench, would have approximately 0.75 acre of temporary impacts to non-wetland waters of the U.S.

The applicant has stated that the proposed electric transmission cable route is designed to avoid and minimize impacts to wetlands and other waterbodies. The preferred cable route has been designed to minimize impacts by using existing roadways and paved areas or existing transportation rights of way to the greatest extent possible. Also, much of the wetland impacts related to the proposed cable route are temporary and generally limited to drainage ditches or other previously disturbed wetland areas.

The applicant expects to purchase the necessary credits with a mitigation bank located within the same watershed of the wetlands proposed to be impacted. If mitigation credits are not available for purchase, the applicant would consider other mitigation options, in consultation with USACE, which may include restoration, conservation or enhancement of wetlands within the New Jersey Meadowlands.

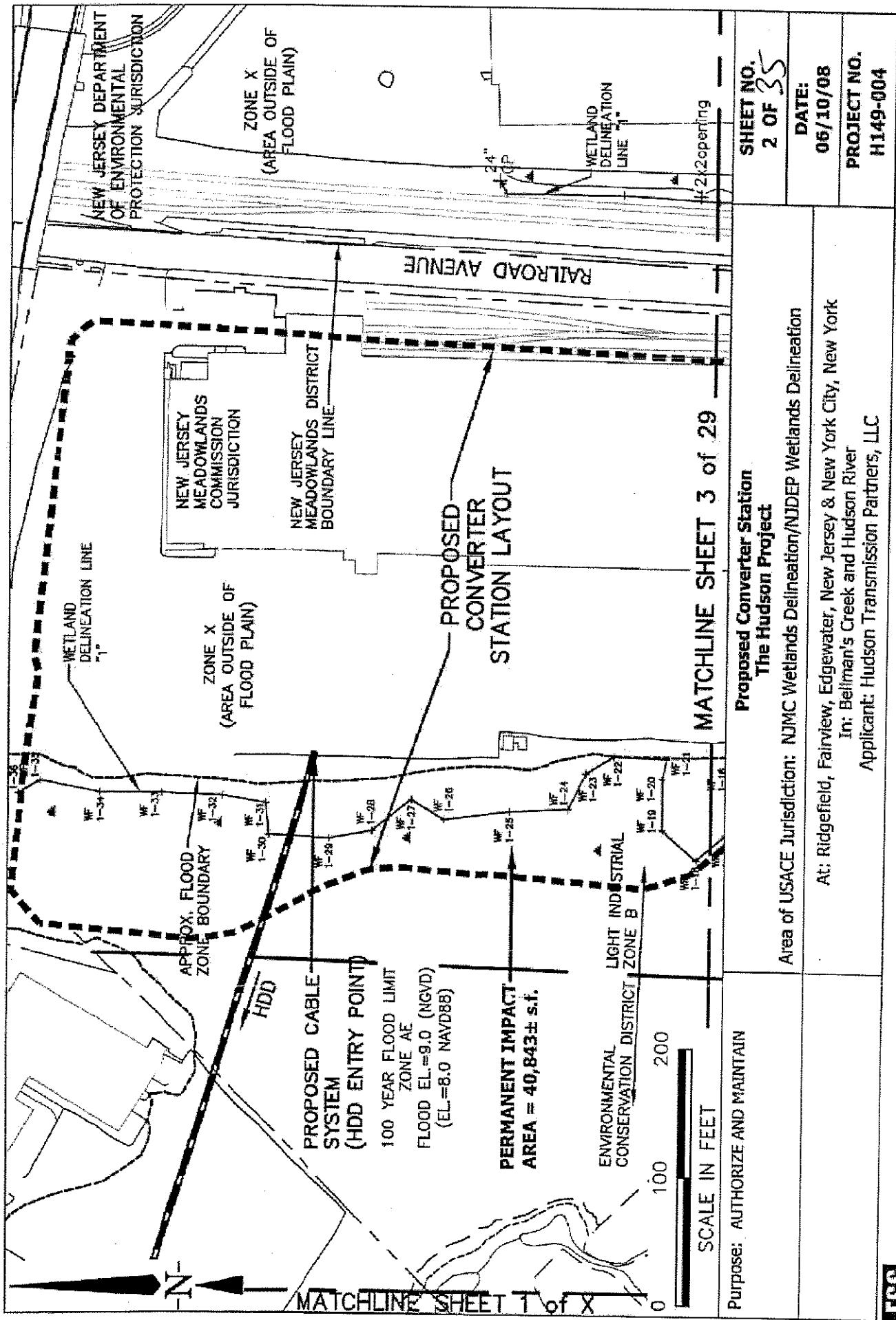
The stated purpose of this project is to provide power to New York City to satisfy the growing demand for electricity and to replace the current infrastructure at prices that are economical, stable and predictable in the long-term.

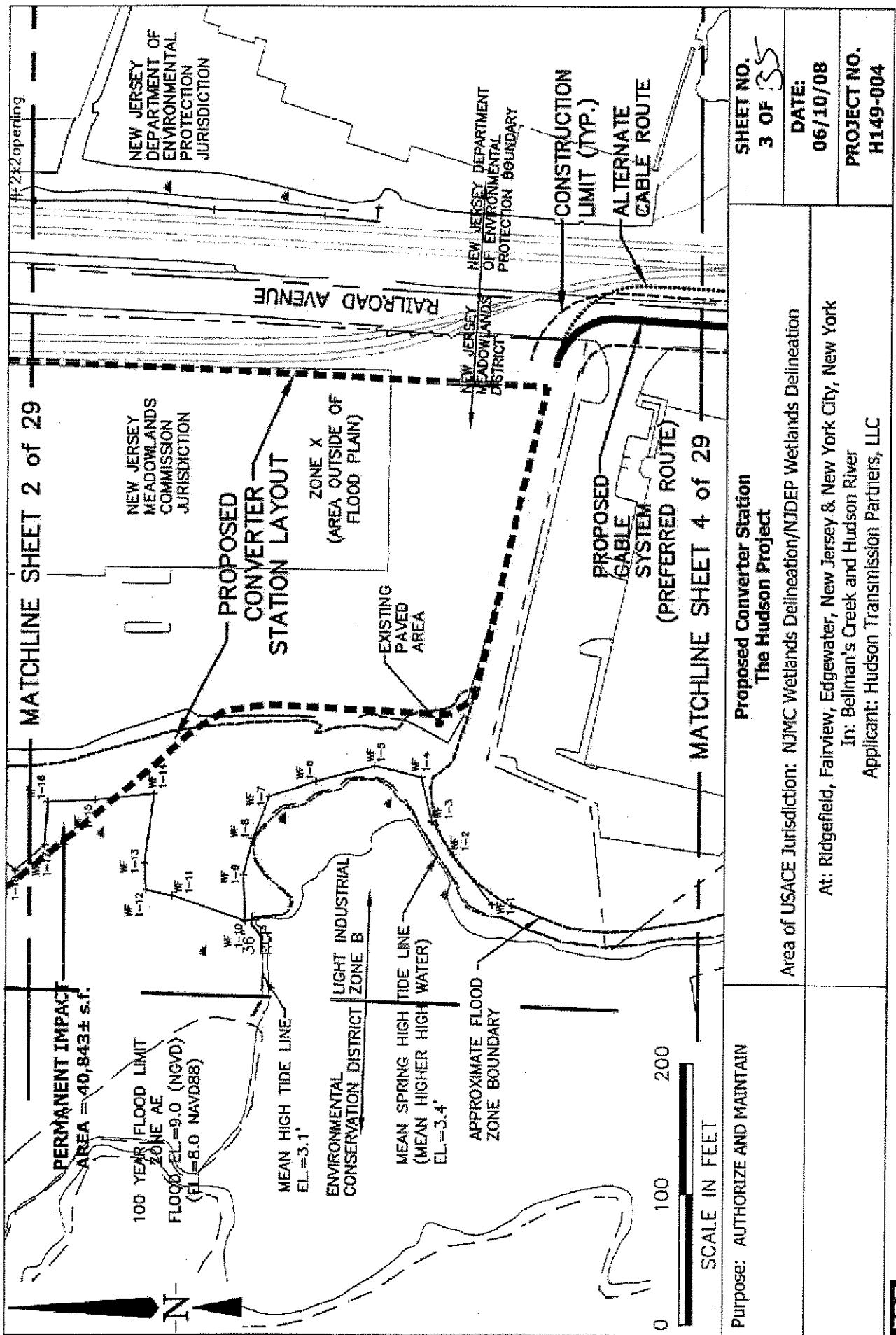
Please use the 18-character application file number above on all submittals.



Purpose: AUTHORIZE AND MAINTAIN	<b>Proposed Cable System Plan The Hudson Project</b> Area of USACE Jurisdiction: NJMC Wetlands Delineation	<b>SHEET NO.</b> <b>1 OF 35</b>
	At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	<b>DATE:</b> <b>06/10/08</b>
		<b>PROJECT NO.</b> <b>H149-004</b>



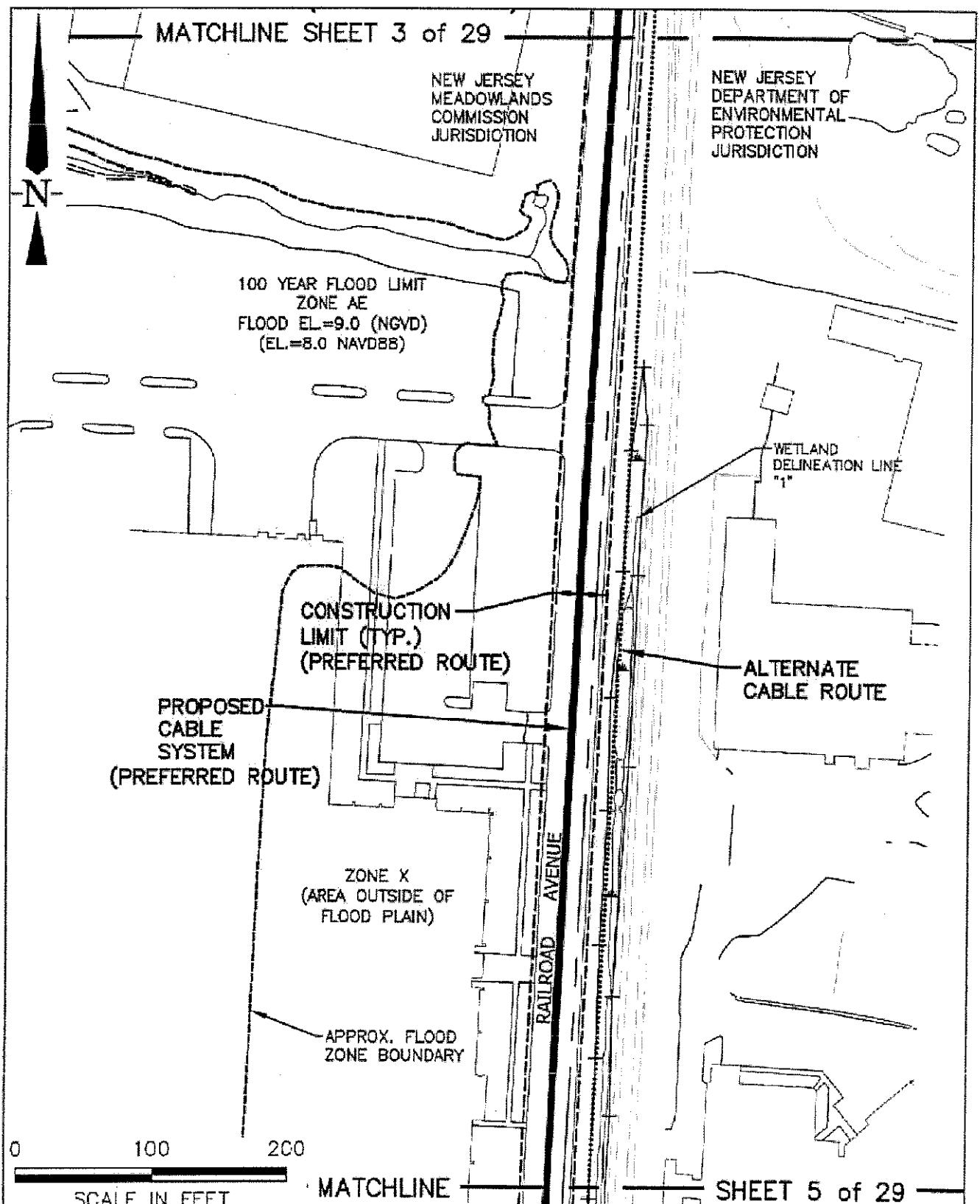




NAN-2008-732-E5E

**ESS**  
Group Inc.

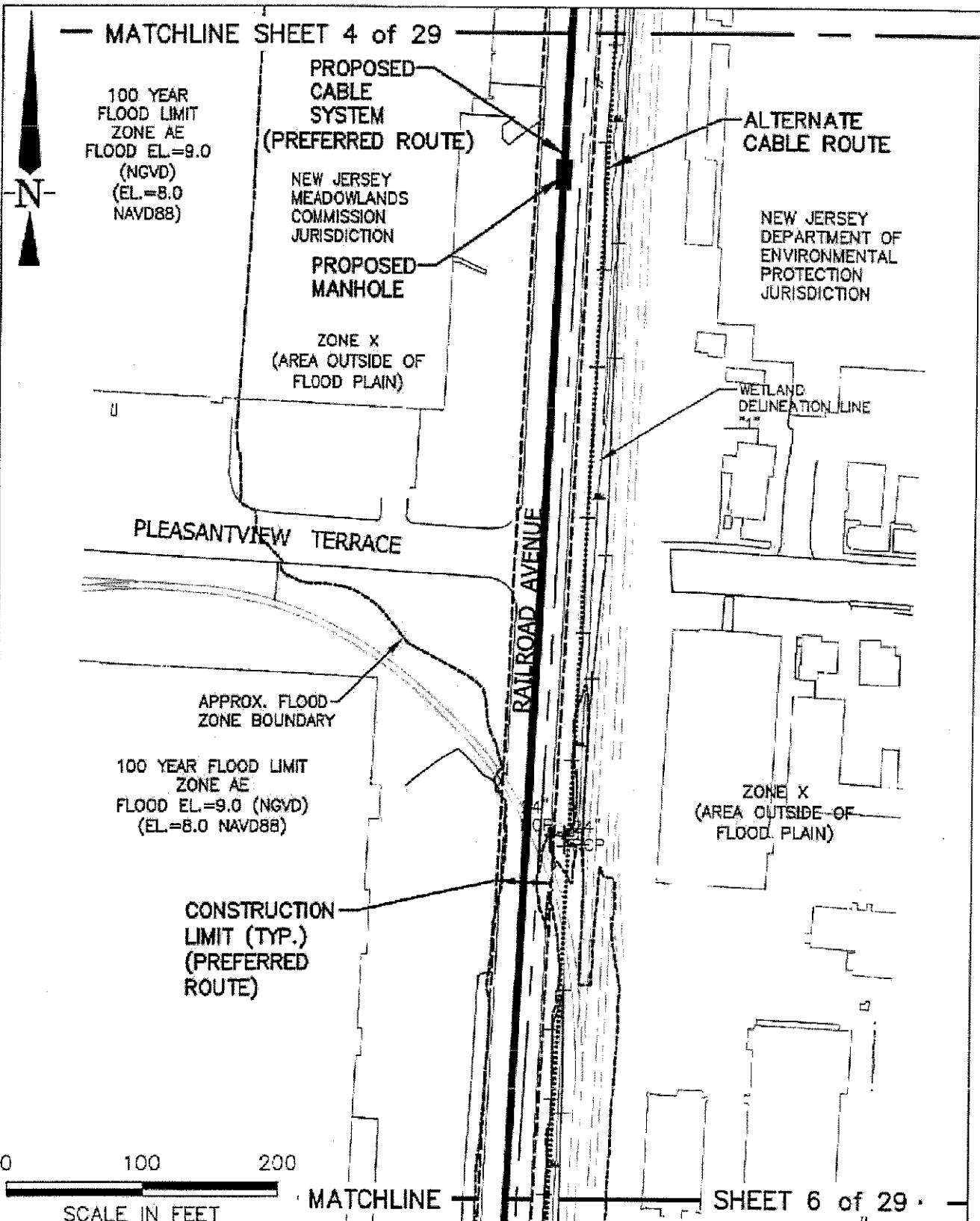
MATCHLINE SHEET 3 of 29



SHEET 5 of 29

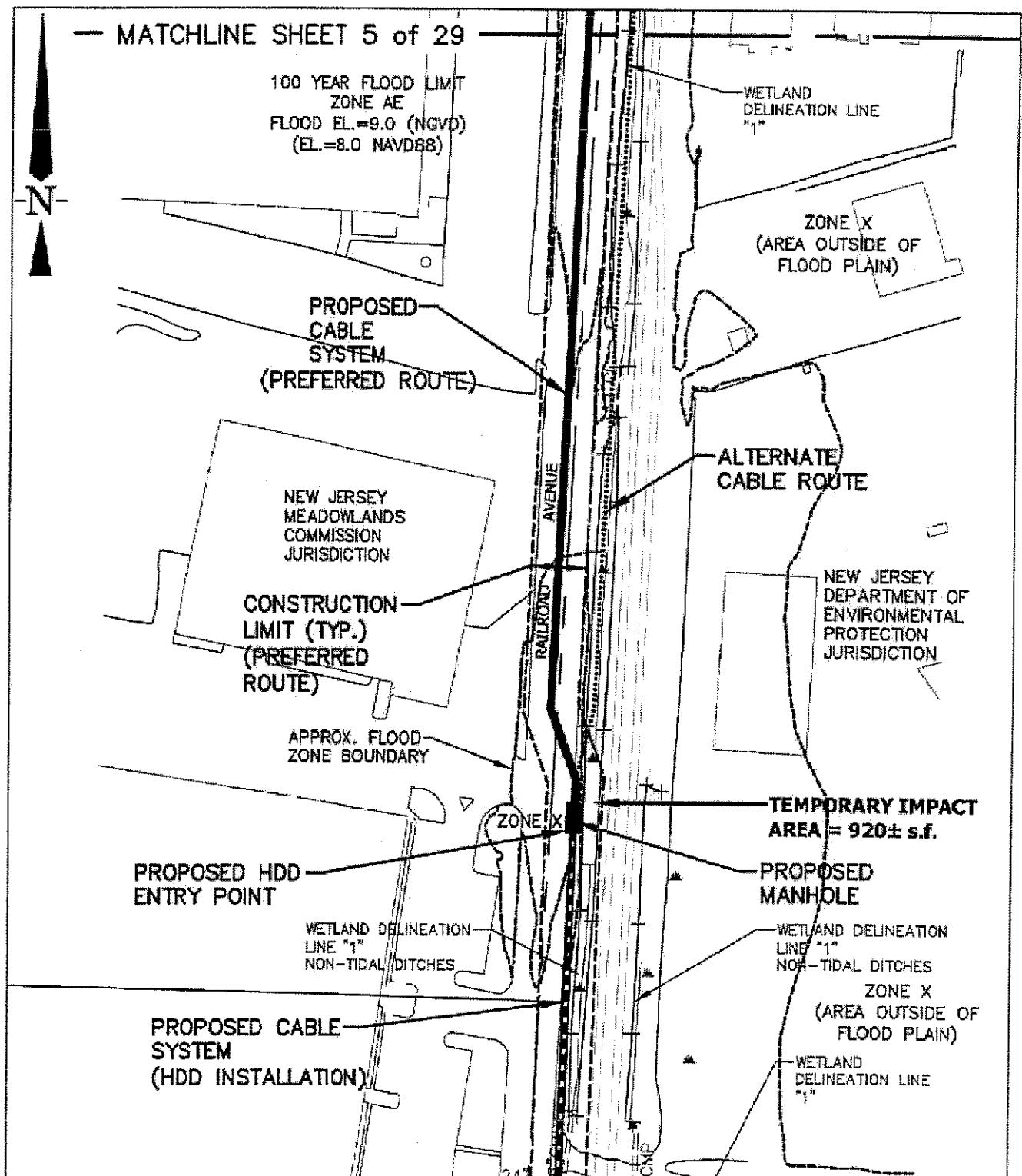
Purpose: AUTHORIZE AND MAINTAIN	Proposed Cable System Plan The Hudson Project	SHEET NO. 4 OF 35
	Area of USACE Jurisdiction: NJMC/NJDEP Wetlands Delineation	DATE: 06/10/08
	At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York	PROJECT NO. H149-004
	In: Bellman's Creek and Hudson River	
	Applicant: Hudson Transmission Partners, LLC	

— MATCHLINE SHEET 4 of 29 —



Purpose: AUTHORIZE AND MAINTAIN	Proposed Cable System Plan The Hudson Project Area of USACE Jurisdiction: NJMC/NJDEP Wetlands Delineation At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	SHEET NO. 5 OF 25
		DATE: 06/10/08

— MATCHLINE SHEET 5 of 29 —



0 100 200

SCALE IN FEET

MATCHLINE

— SHEET 7 of 29 —

Purpose: AUTHORIZE AND MAINTAIN

Proposed Cable System Plan  
The Hudson Project

SHEET NO.  
6 OF 25

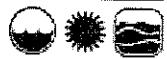
Area of USACE Jurisdiction: NJMC/NJDEP Wetlands Delineation

DATE:  
06/10/08

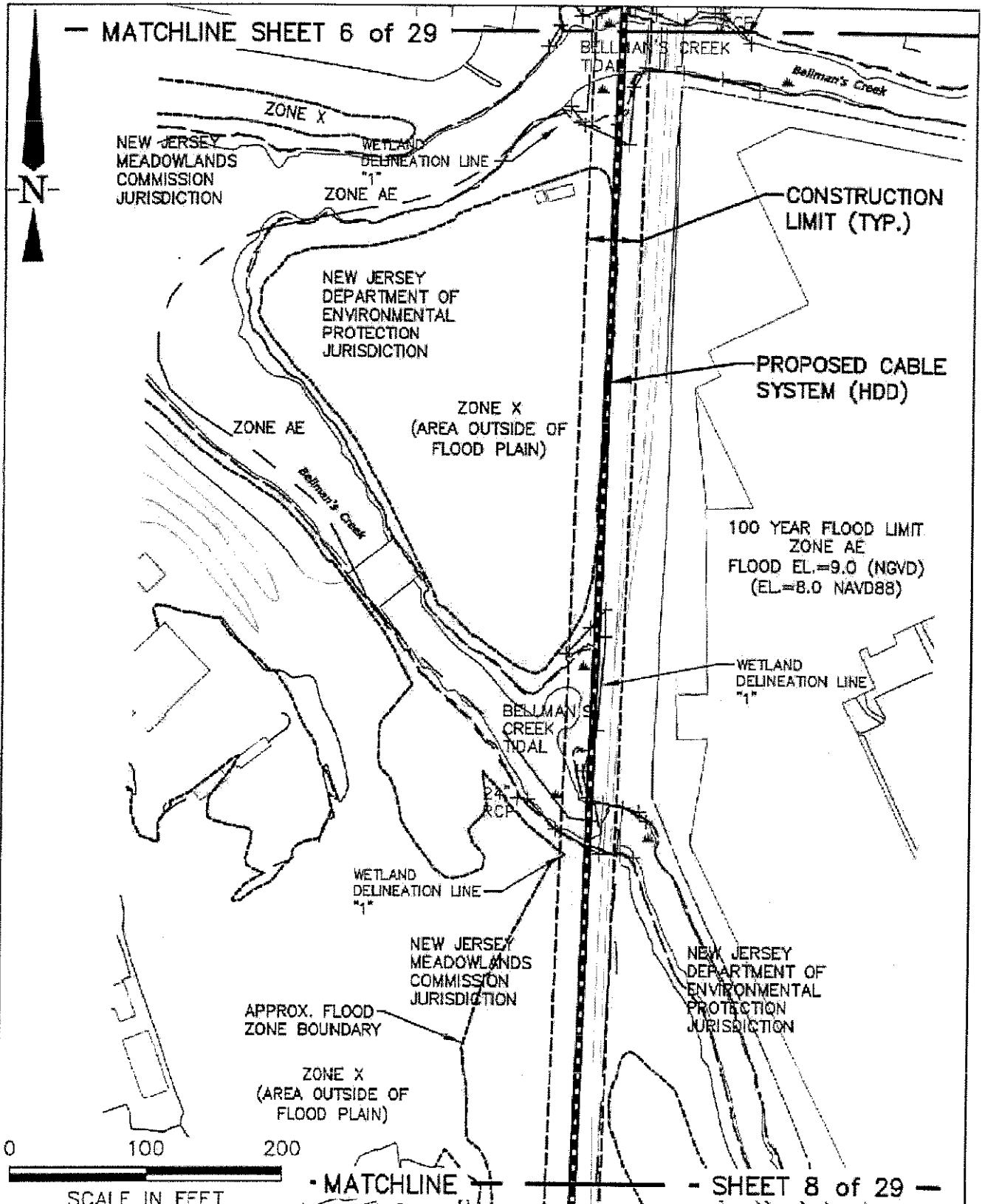
At: Ridgefield, Fairview, Edgewater, New Jersey &  
New York City, New York

PROJECT NO.  
H149-004

In: Bellman's Creek and Hudson River  
Applicant: Hudson Transmission Partners, LLC



- MATCHLINE SHEET 6 of 29 -



0 100 200  
SCALE IN FEET

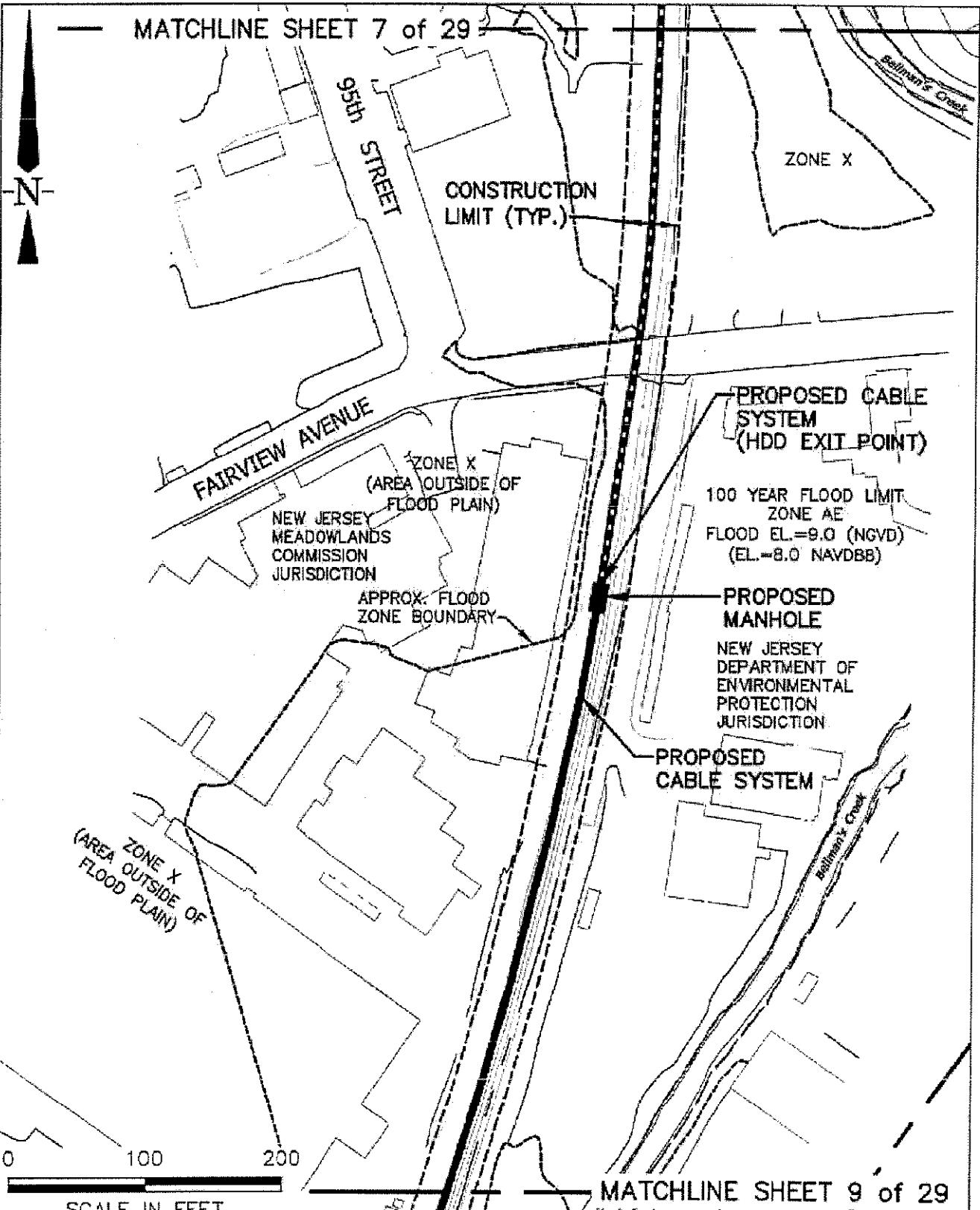
MATCHLINE

- SHEET 8 of 29 -

Purpose: AUTHORIZE AND MAINTAIN	Proposed Cable System Plan The Hudson Project	SHEET NO. 7 OF 35
	Area of USACE Jurisdiction: NJMC/NJDEP Wetlands Delineation At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	DATE: 06/10/08
		PROJECT NO. H149-004

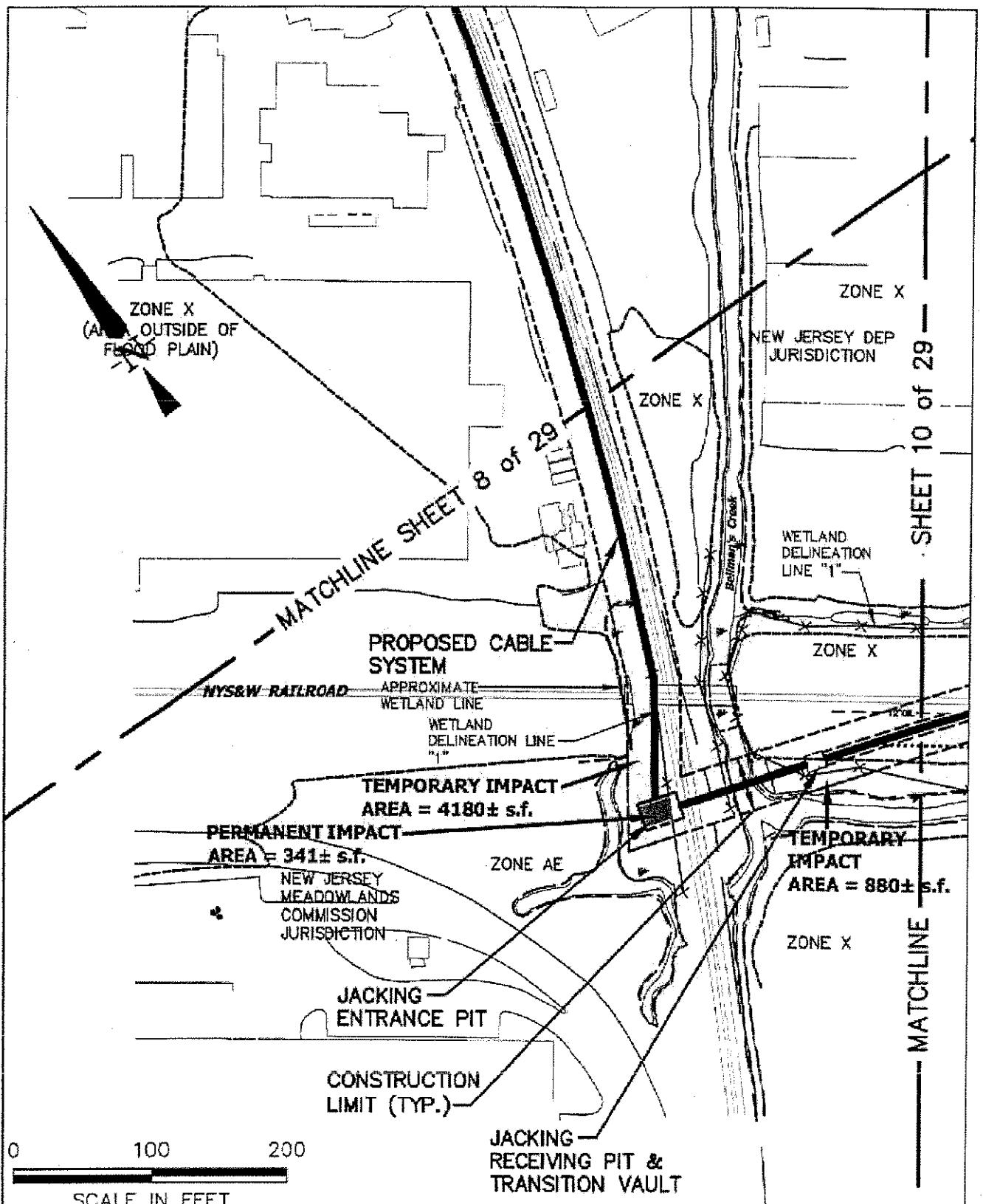


MATCHLINE SHEET 7 of 29

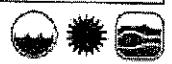


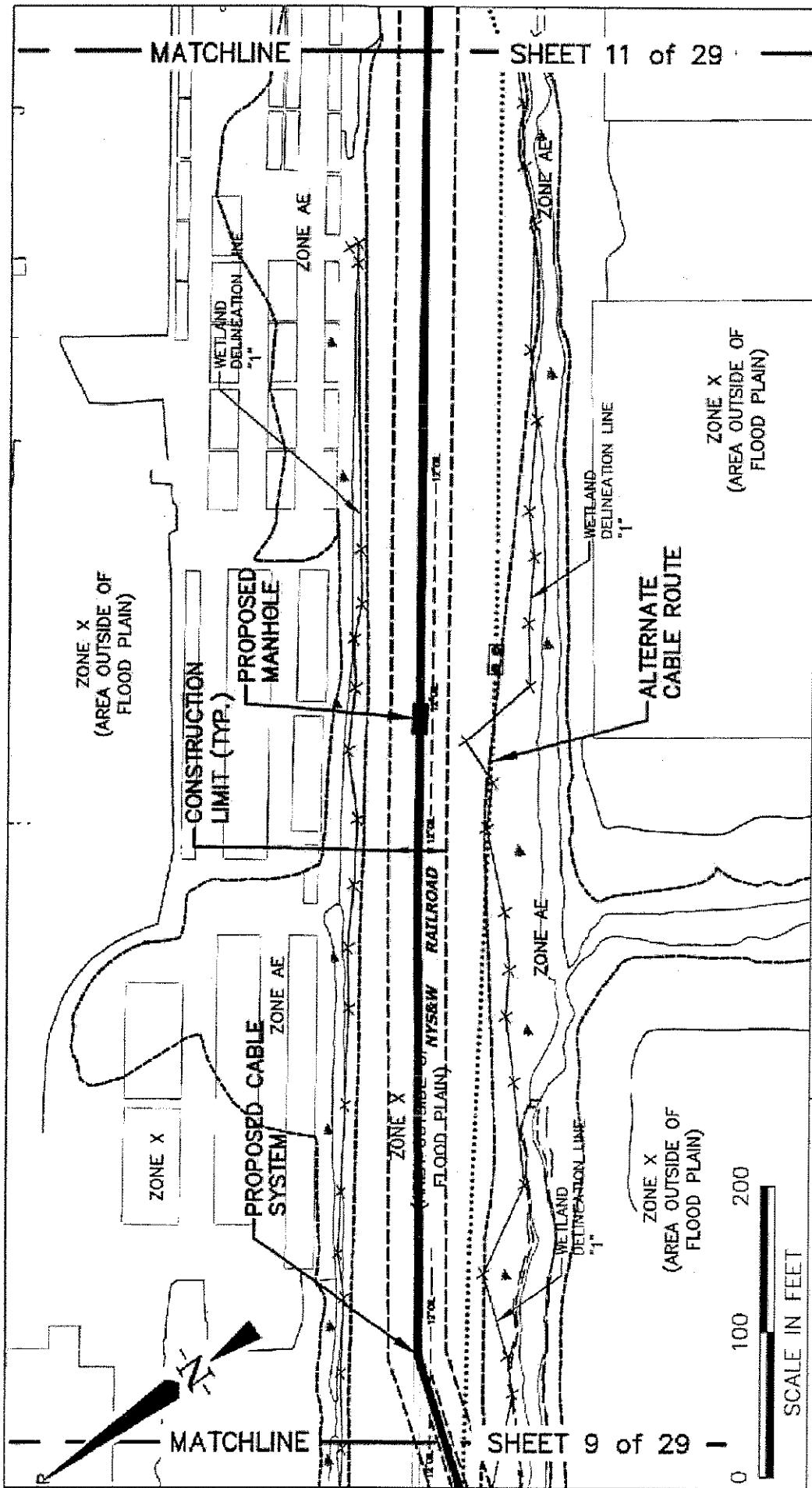
MATCHLINE SHEET 9 of 29

Purpose: AUTHORIZE AND MAINTAIN	Proposed Cable System Plan The Hudson Project Area of USACE Jurisdiction: NJMC/NJDEP Wetlands Delineation At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	SHEET NO. 8 OF 35  DATE: 06/10/08  PROJECT NO. H149-0D4
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Purpose: AUTHORIZE AND MAINTAIN	Proposed Cable System Plan The Hudson Project Area of USACE Jurisdiction: NJMC/NJDEP Wetlands Delineation At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	SHEET NO. 9 OF 35 DATE: PROJECT NO. H149-004
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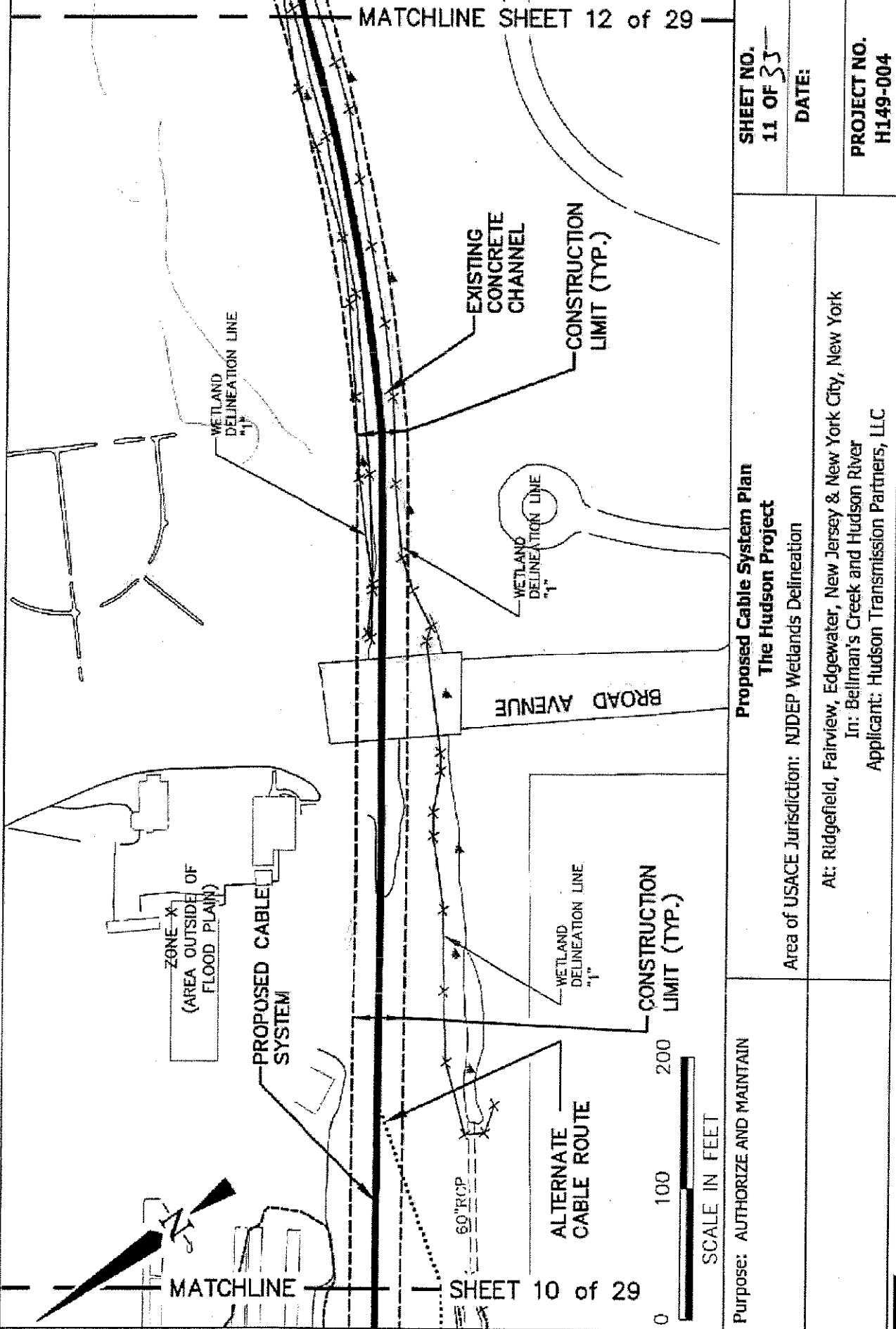


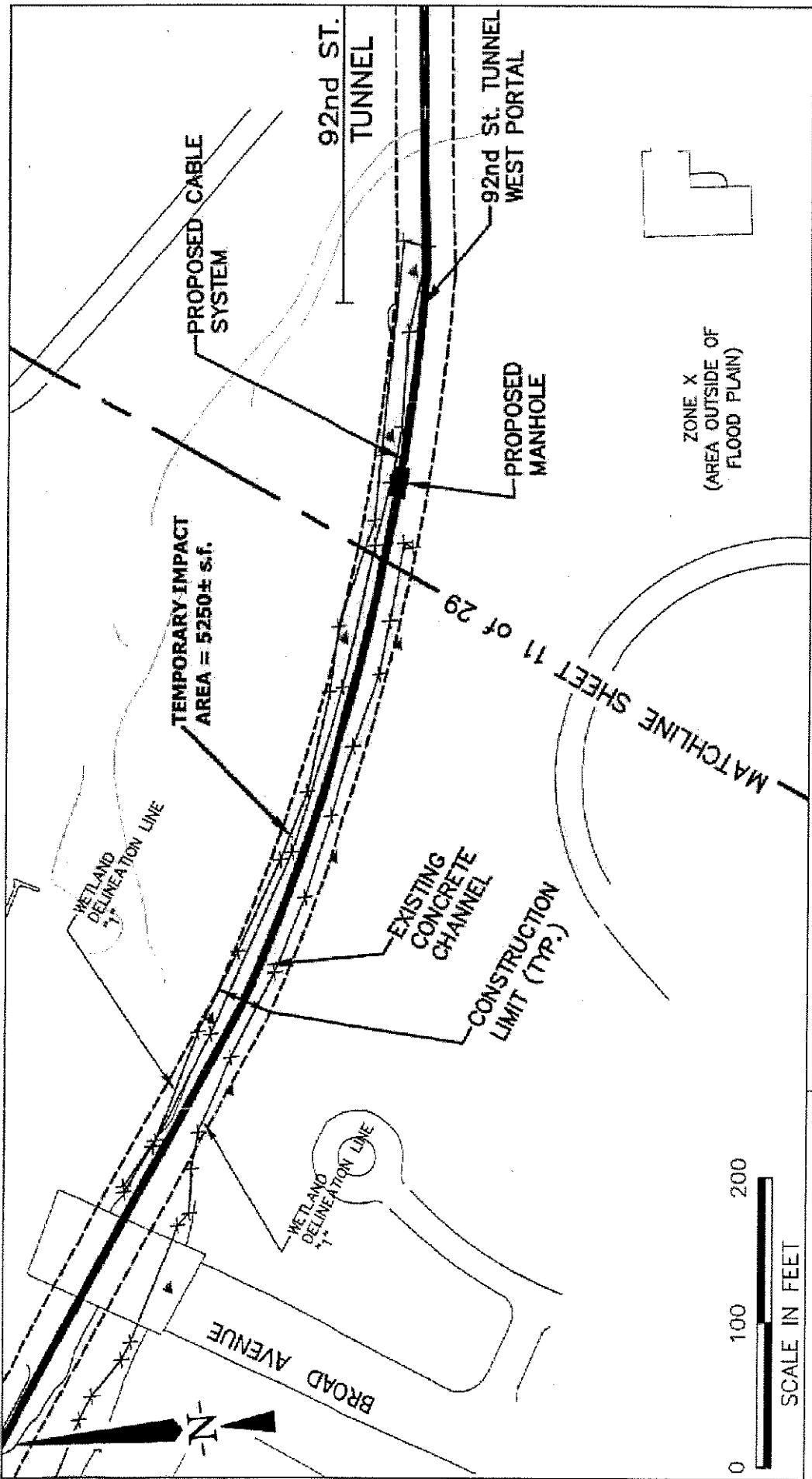


<b>PURPOSE: AUTHORIZE AND MAINTAIN</b>	<b>Proposed Cable System Plan</b> <b>The Hudson Project</b>
<b>Area of USACE Jurisdiction: NJDEP Wetlands Delineation</b>	<b>SHEET NO.</b> <b>10 OF 35</b>
<b>At: Ridgefield, Fairview, Edgewater, New Jersey &amp; New York City, New York</b> <b>In: Bellman's Creek and Hudson River</b>	<b>DATE:</b>
<b>Applicant: Hudson Transmission Partners, LLC</b>	<b>PROJECT NO.</b> <b>H149-004</b>

**ISS Group Inc.**

**NAN-2008-738-E5C**

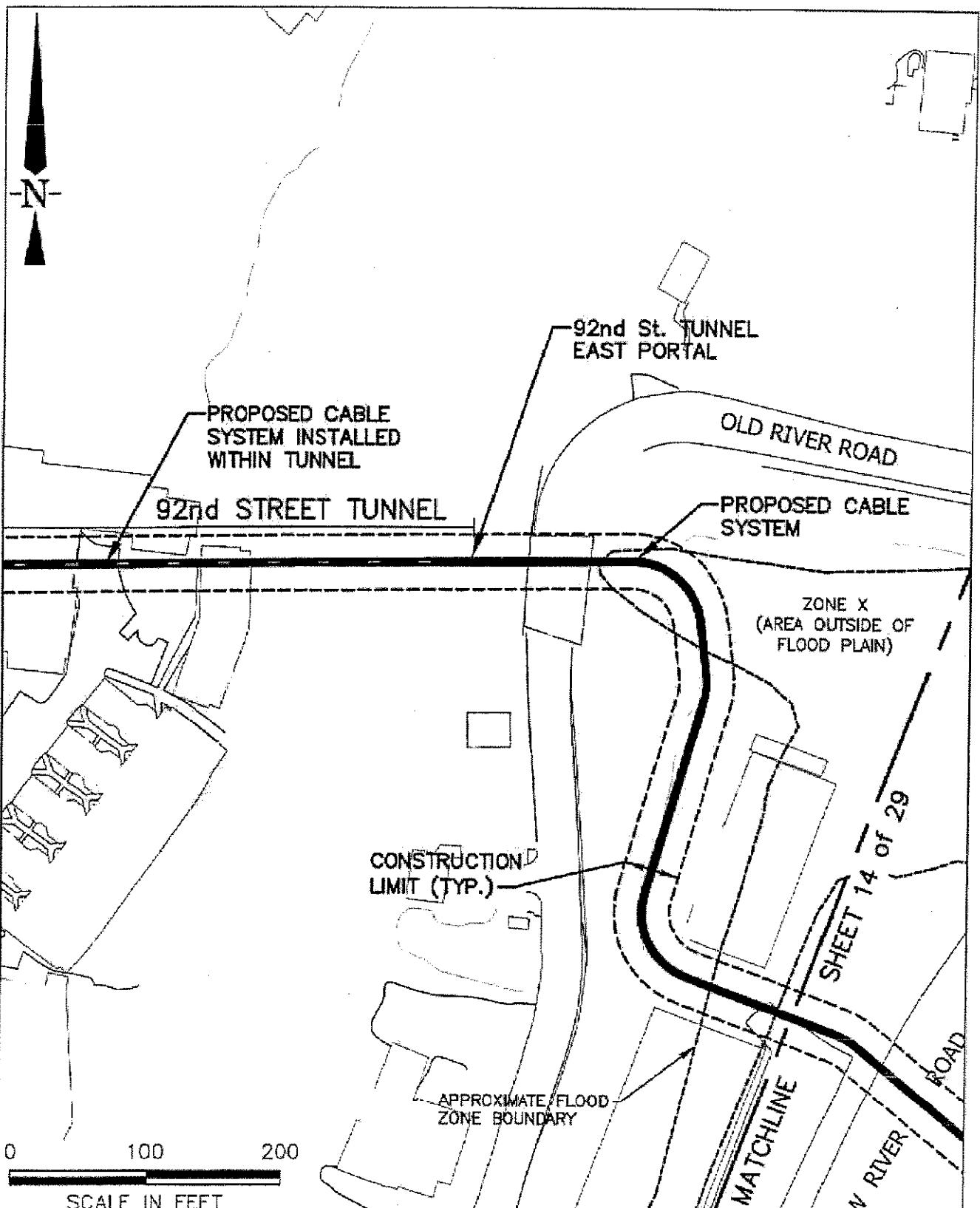

*MAP-2008-732-CTC*



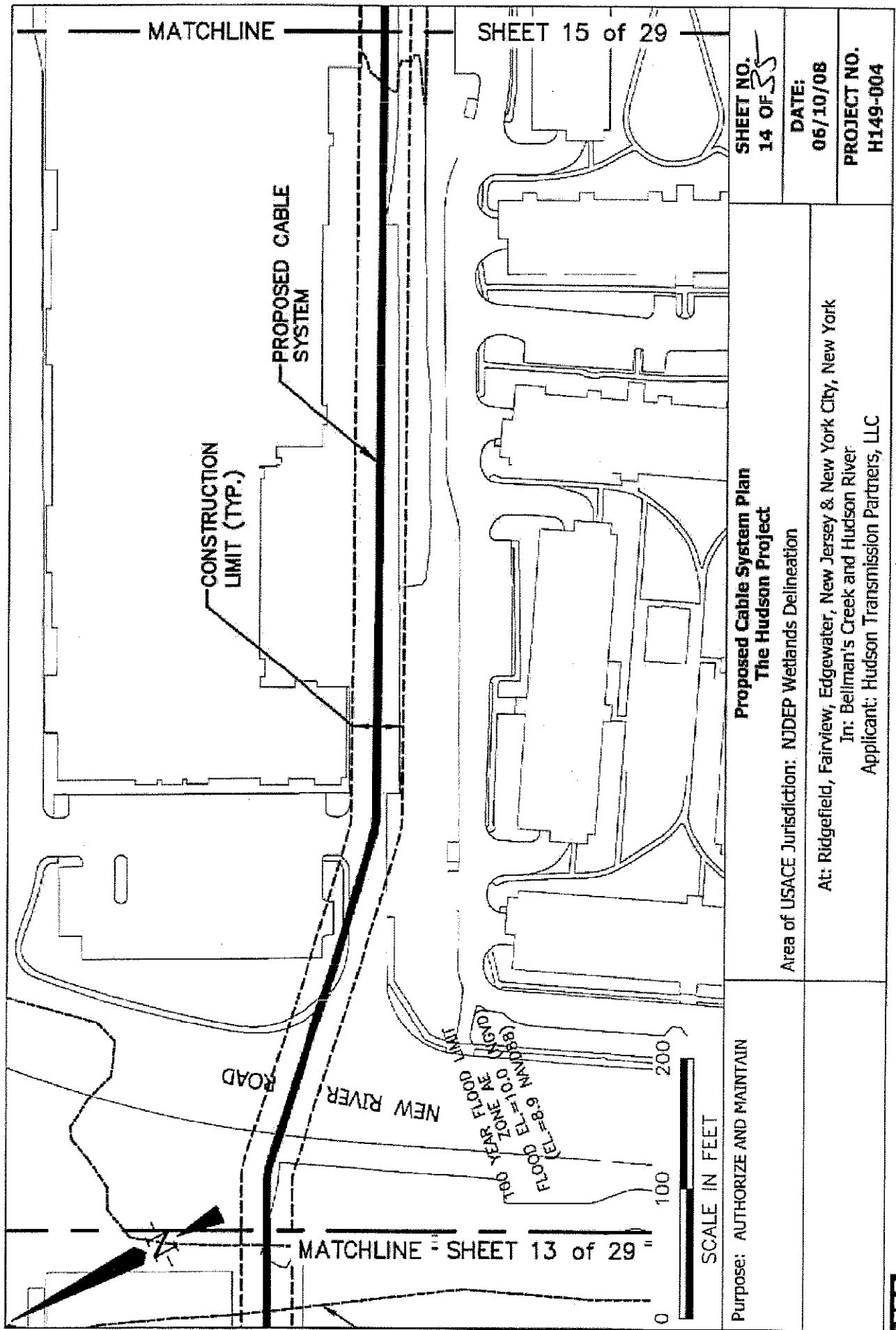
Purpose: AUTHORIZE AND MAINTAIN	Area of USACE Jurisdiction: NJDEP Wetlands Delineation At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	SHEET NO. 12 OF 35 DATE: 06/10/08 PROJECT NO. H149-004
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NAN-2008-732-CTE

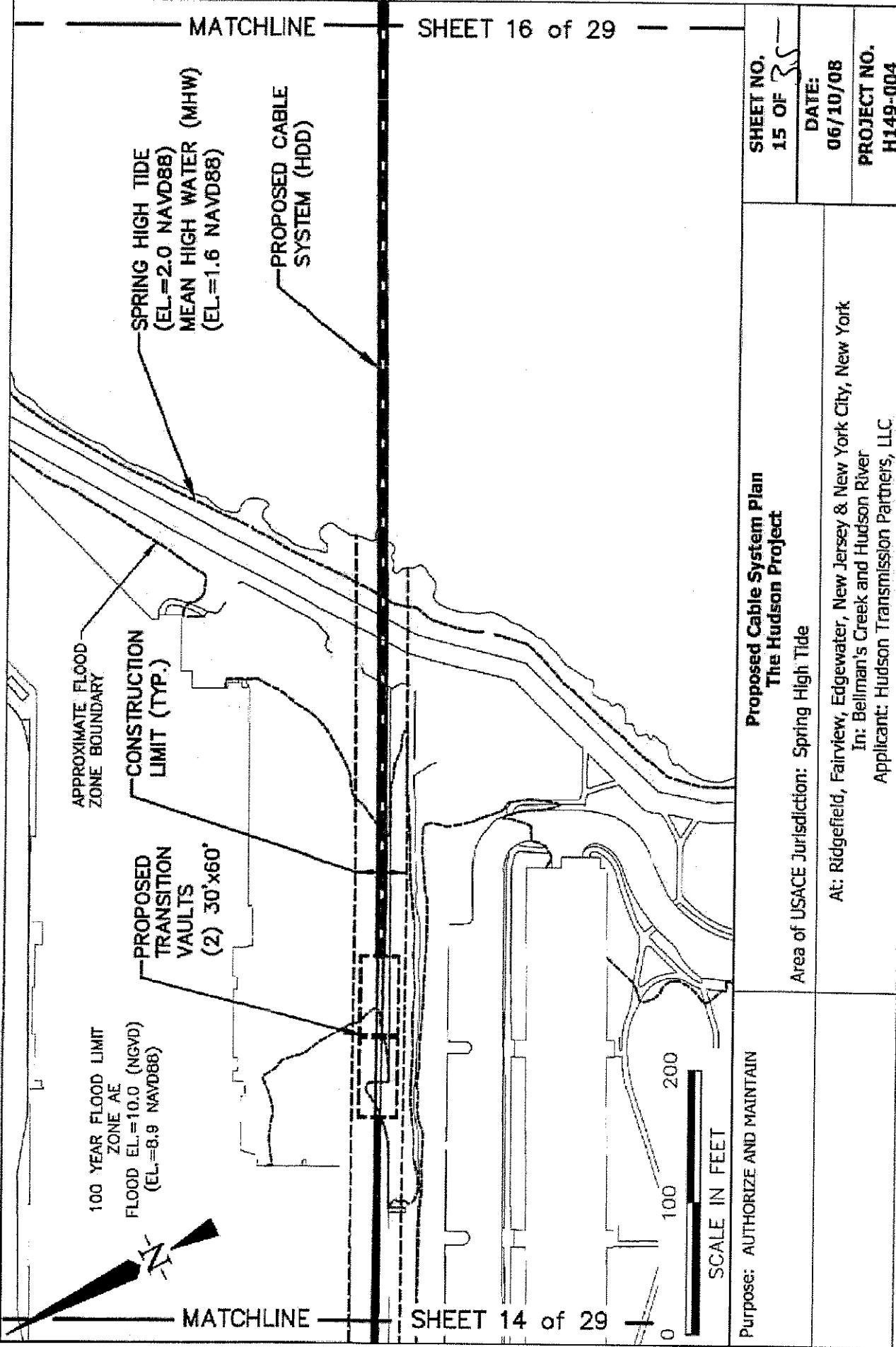


Purpose: AUTHORIZE AND MAINTAIN	Proposed Cable System Plan The Hudson Project	SHEET NO. 13 OF 25
	Area of USACE Jurisdiction: None	
	At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York	DATE: 06/10/08
	In: Bellman's Creek and Hudson River	PROJECT NO. H149-004
	Applicant: Hudson Transmission Partners, LLC	



MATCHLINE

SHEET 16 of 29



NANU-2008-732-EJE

MATCHLINE

SHEET 17 of 29

PROPOSED  
SUBMARINE  
CABLE SYSTEM

FLOOD

EBB

## HUDSON RIVER

PROPOSED  
TEMPORARY  
COFFERDAM  
(30'x100')  
1260 C.Y. TOTAL  
DREDGE & BACKFILL

SCALE IN FEET  
0 100 200

FEDERAL CHANNEL  
PROJECT DEPTH: -30 FT MLW  
(-32.57 FT NAVD88)

PIERHEAD LINE

(25)

(20)  
(15)  
(10)  
(5)

MATCHLINE

SHEET 15 of 29

Purpose: AUTHORIZE AND MAINTAIN

Proposed Cable System Plan  
The Hudson Project

Area of USAEC Jurisdiction: Spring High Tide

SHEET NO.  
16 OF 35

DATE:  
06/10/08

PROJECT NO.  
H149-004

At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York  
Int: Bellman's Creek and Hudson River  
Applicant: Hudson Transmission Partners, LLC

ESS  
Group Inc.

HAN-2008-732-EJC

MATCHLINE

SHEET 18 of 29

PIERHEAD LINE

PROPOSED  
SUBMARINE  
CABLE SYSTEM

RIVER

HUDSON

NEW YORK  
NEW JERSEY

FLOOD  
EBB

0 400 800

SCALE IN FEET

Proposed Submarine Cable System Plan  
The Hudson Project

Area of USACE Jurisdiction: Spring High Tide

At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York  
In: Bellman's Creek and Hudson River  
Applicant: Hudson Transmission Partners, LLC

SHEET NO.

17 OF 29

DATE:

06/10/08

PROJECT NO.

H149-004

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Group Inc.

NAN-2008-732-C5C

--- MATCHLINE ---

SHEET 19 of 29

PIERHEAD LINE

PROPOSED  
SUBMARINE  
CABLE SYSTEM

1-49  
1-49  
1-49

FLOOD ↗  
EBB ↘

HUDSON

RIVER

NEW YORK  
NEW JERSEY

SCALE IN FEET

0 400 800

--- MATCHLINE ---

SHEET 17 of 29

Purpose: AUTHORIZE AND MAINTAIN

Proposed Submarine Cable System Plan  
The Hudson Project

SHEET NO.  
18 OF 35

DATE:  
06/10/08

PROJECT NO.  
H149-004



NAN-2008-732-ETC



MATCHLINE

SHEET 20 of 29

PIERHEAD LINE

HUDSON RIVER

PROPOSED  
SUBMARINE  
CABLE SYSTEM

FLOOD → EBB

(TRANSIT)

EXTENDS 2-24" C/S PIPELINES

NEW YORK  
NEW JERSEY

SCALE IN FEET  
0 400 800

- MATCHLINE

SHEET 18 of 29

Purpose: AUTHORIZE AND MAINTAIN

Proposed Submarine Cable System Plan  
The Hudson Project

SHEET NO.  
19 O 35

DATE:  
06/10/08

PROJECT NO.  
H149-004

Area of USACE Jurisdiction: Spring High Tide  
At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York  
In: Bellman's Creek and Hudson River

Applicant: Hudson Transmission Partners, LLC



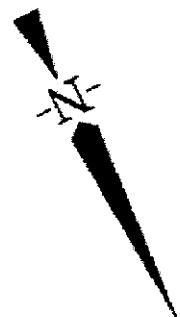
NAN-2008-732-~~732~~

MATCHLINE

SHEET 21 of 29

HUDSON RIVER

PROPOSED  
SUBMARINE  
CABLE SYSTEM



MATCHLINE

FLOOD →  
EBB

200 400

SCALE IN FEET

SHEET 19 of 29

Purpose: AUTHORIZE AND MAINTAIN

SHEET NO.  
20 OF 25

DATE:  
06/10/08

PROJECT NO.  
H149-004

Proposed Submarine Cable System Plan

The Hudson Project

Area of USACE Jurisdiction: Spring High Tide

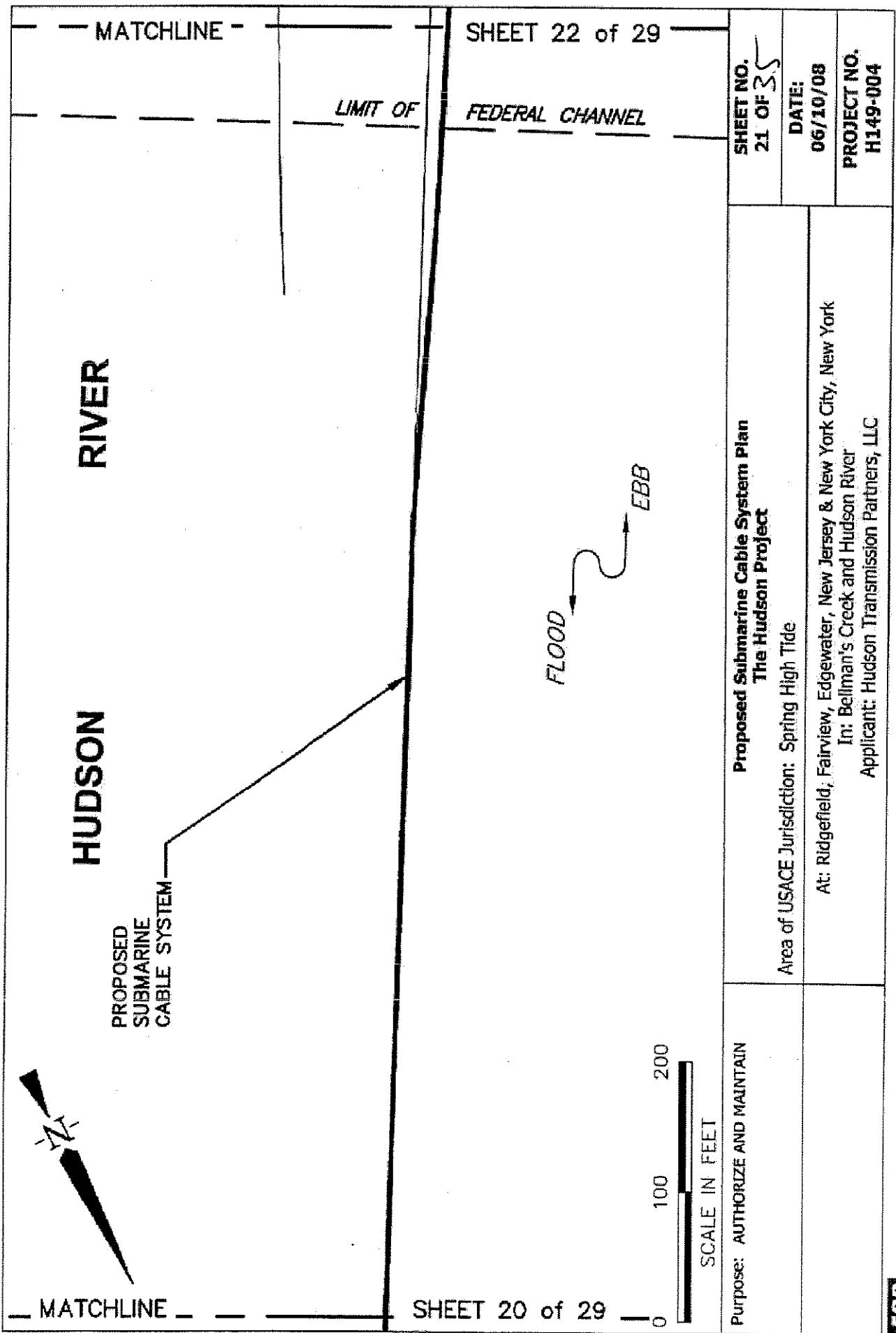
At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York  
In: Bellman's Creek and Hudson River

Applicant: Hudson Transmission Partners, LLC

ESS Group Inc.

NAN-2008-732-ECE





# HUDSON

# RIVER

PROPOSED  
SUBMARINE  
CABLE SYSTEM

— MATCHLINE —

SHEET 23 of 29 —

SHEET NO.  
22 OF 35

DATE:  
06/10/08

PROJECT NO.  
H149-004



FLOOD →  
EBB ←

FEDERAL CHANNEL  
PROJECT DEPTH: -43 FT MLW  
(-50.57 FT NAVD88)

200 400

SCALE IN FEET

SHEET 21 of 29 —

Purpose: AUTHORIZE AND MAINTAIN

Proposed Submarine Cable System Plan

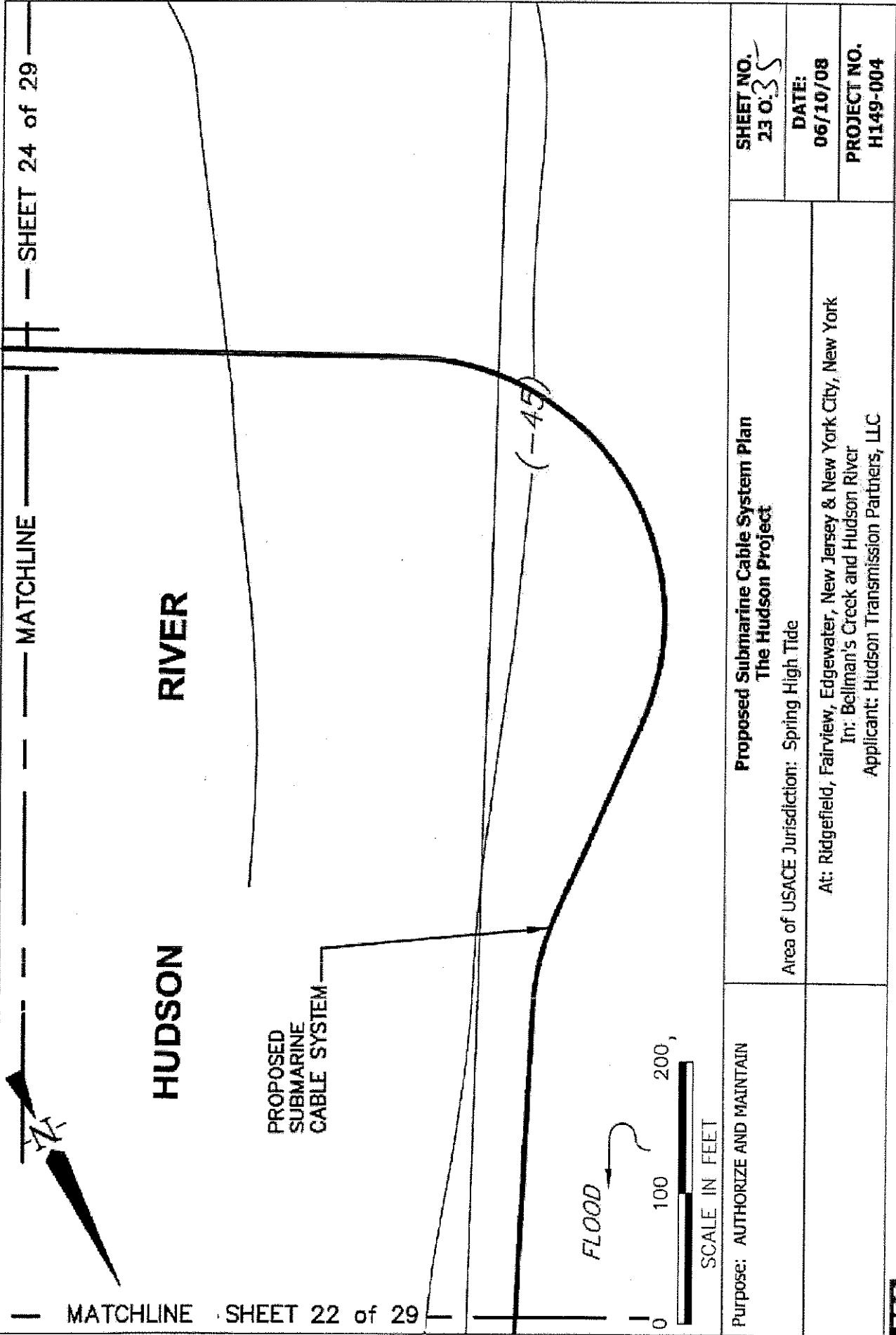
The Hudson Project

Area of USACE Jurisdiction: Spring High Tide

At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York  
In: Bellman's Creek and Hudson River  
Applicant: Hudson Transmission Partners, LLC

FSS  
Group Inc.

NAN-2008-732-ESE



— — — MATCHLINE — — —

— — — SHEET 25 of 29 — — —

BULKHEAD LINE

## PIER 94

ZONE X

MEAN HIGH WATER, SPRING  
HIGH TIDE, AND MEAN LOW  
WATER ARE COINCIDENT WITH  
PIERS/BULKHEADS  
(SHT: EL = 2.0 NAVD88±)  
(MHW: EL = 1.5 NAVD88±)

PROPOSED  
TEMPORARY  
COFFERDAM  
(30'x100')

1260 C.Y. TOTAL  
DREDGE & BACKFILL

PROPOSED SUBMARINE CABLE SYSTEM  
IN HDD CONDUITS

100 YEAR FLOOD LIMIT  
ZONE AE  
FLOOD EL = 10.0 (NGVD)  
(EL = 9.5 NAVD88)

## PIER 92

ZONE X

SCALE IN FEET

0 100 200

— — — MATCHLINE — — —

SHEET 23 of 29

Purpose: AUTHORIZE AND MAINTAIN

Proposed Submarine Cable System Plan  
The Hudson Project

SHEET NO.  
24 OF 25

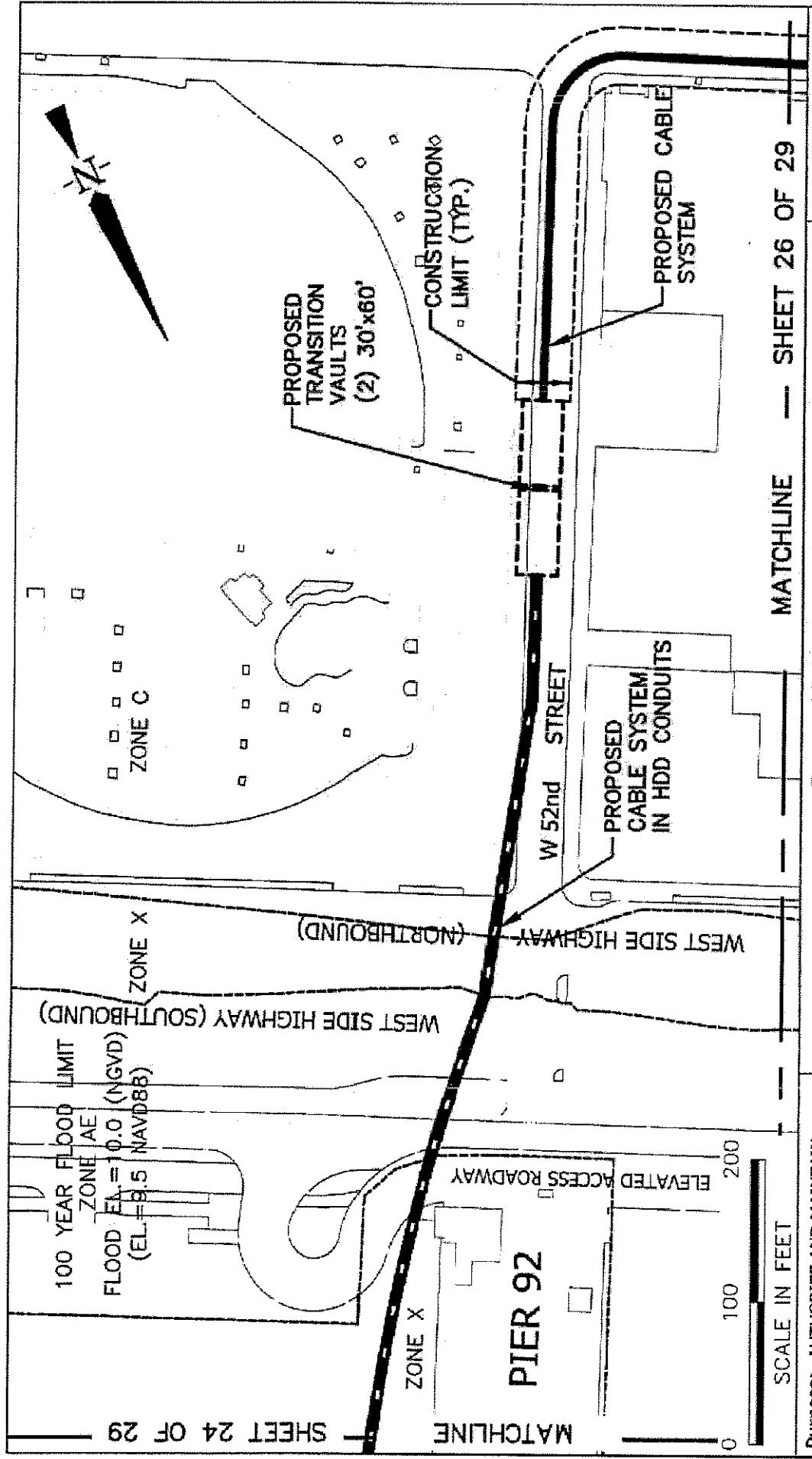
DATE:  
06/10/08

PROJECT NO.  
H149-004

**ESS**  
GROUP INC.

HAN-2008-732-EJE





#### **Purpose:** AUTHORIZE AND MAINTAIN

## **Proposed Cable System Plan The Hudson Project**

SHEET NO. 2502

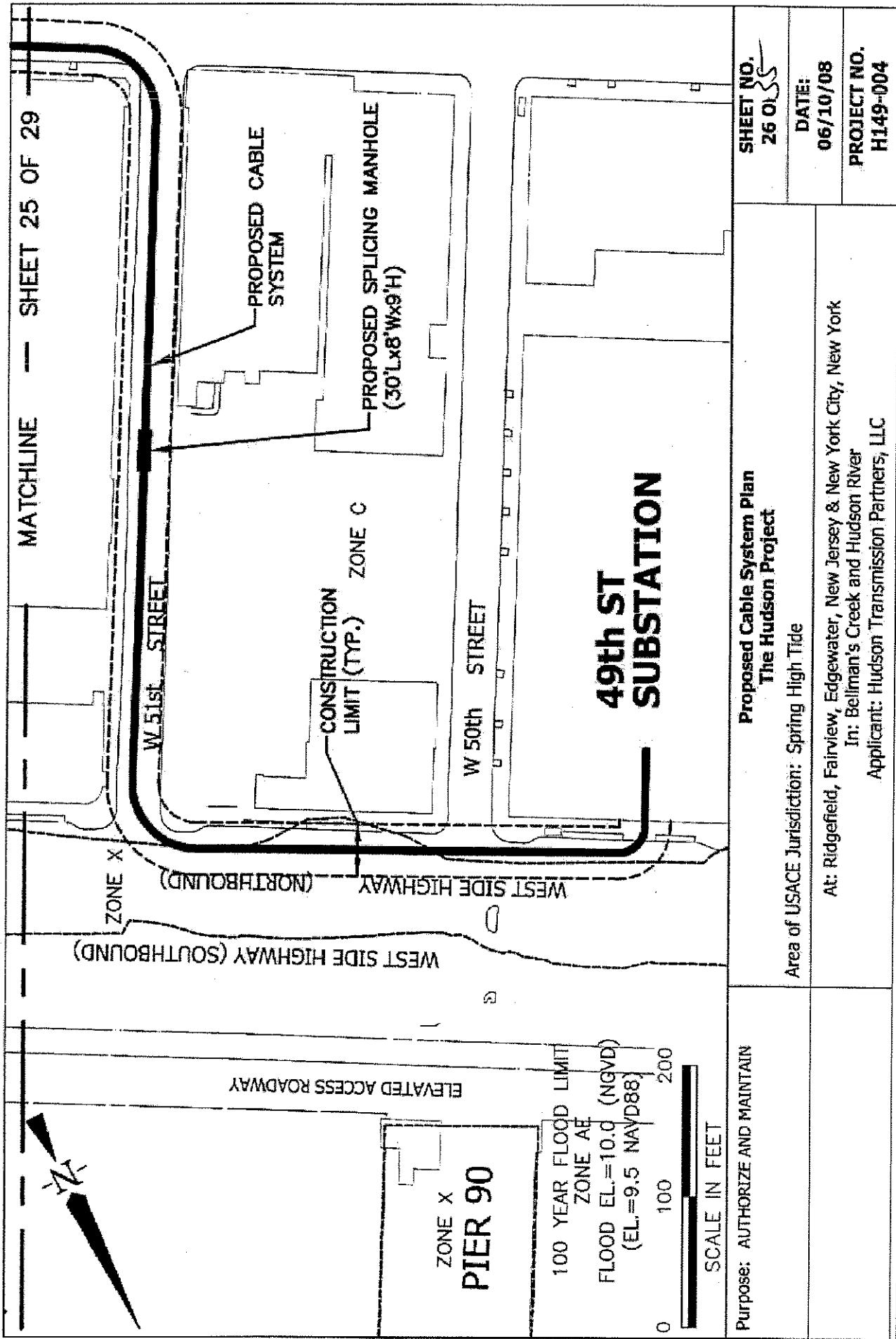
Area of USACE Jurisdiction: Spring High Tide

SACE Jurisdiction: Spring High Tide  
At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York

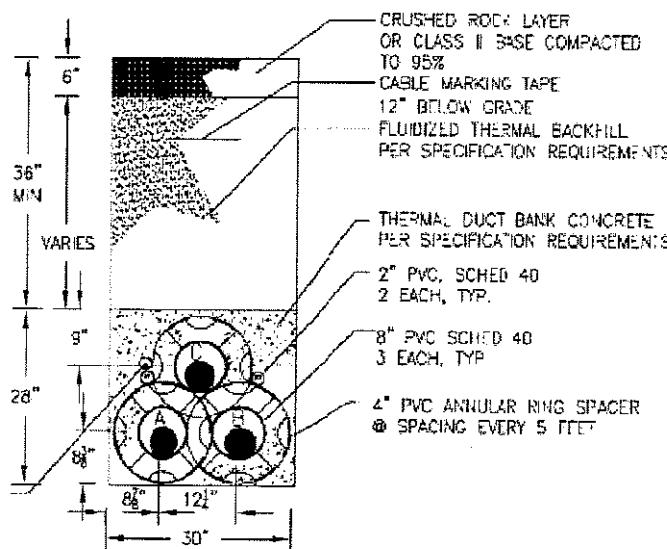
**PROJECT NO.**  
**H149-004**



53

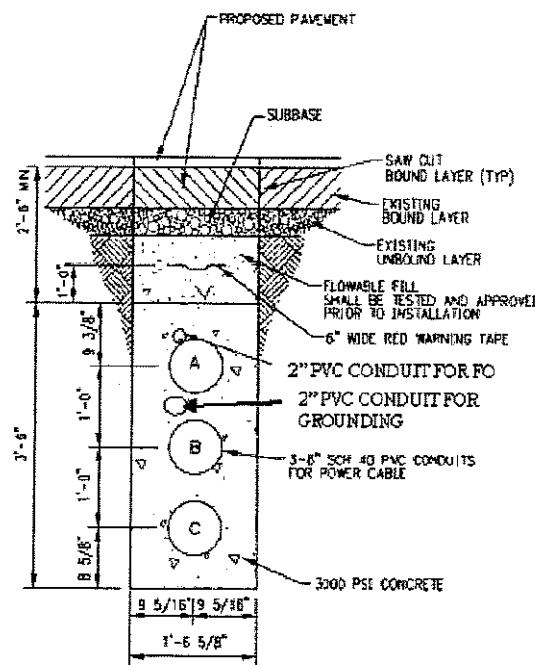


MAN-2008-F32-EJC

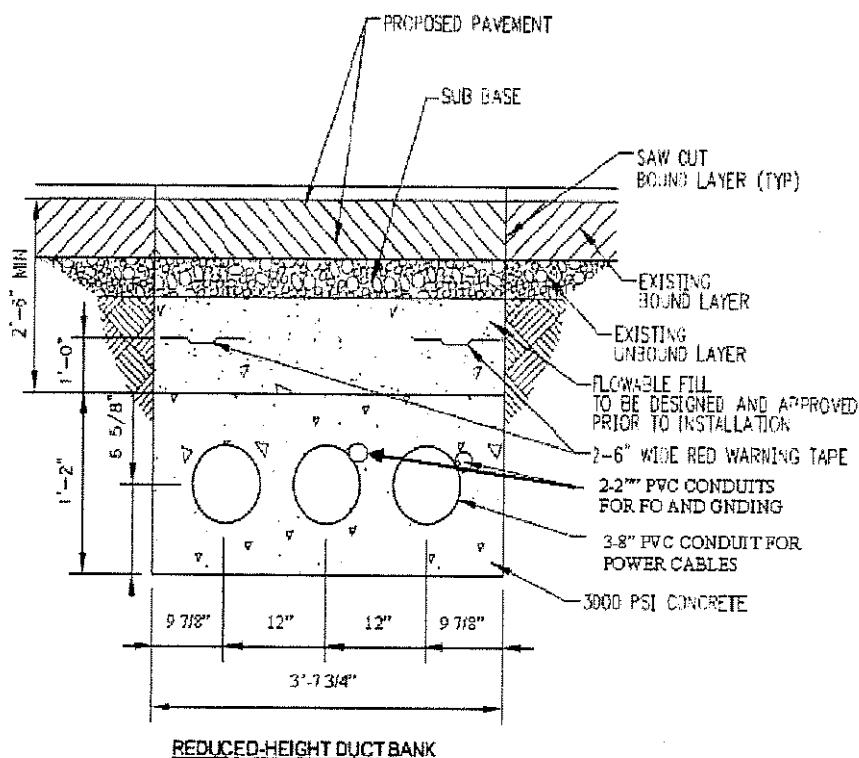


TYPICAL TREFOIL DUCT BANK CONFIGURATION

Purpose: AUTHORIZE AND MAINTAIN	Typical Preferred Upland Cable Trench Details The Hudson Project	SHEET NO. <u>27 OF 25</u>
	At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	DATE: <u>05/09/08</u> PROJECT NO. <u>H149-004</u>

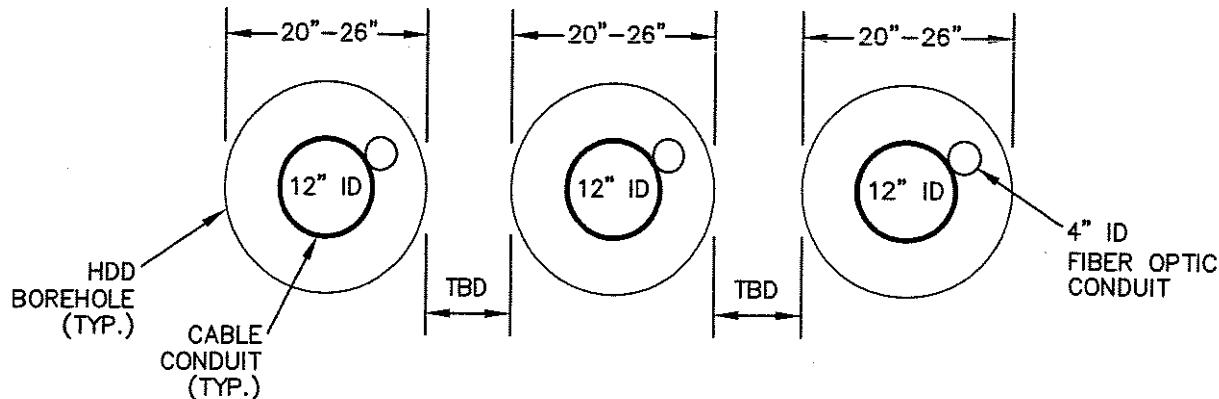


TYPICAL VERTICAL DUCT BANK CONFIGURATION

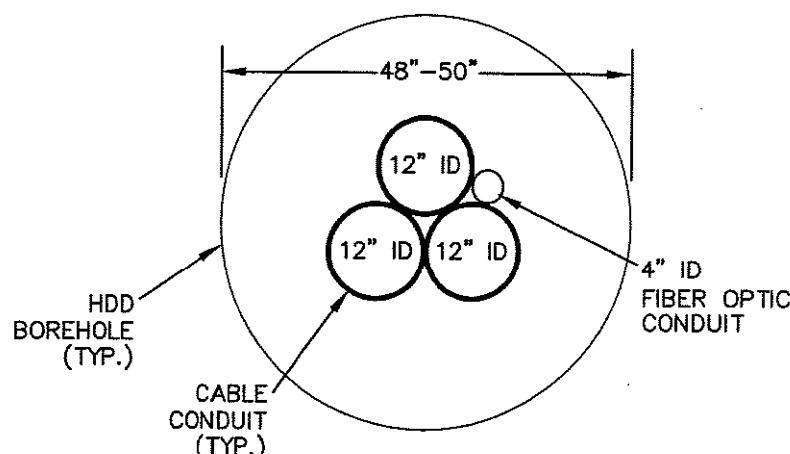


TYPICAL HORIZONTAL DUCT BANK CONFIGURATION

Purpose: AUTHORIZE AND MAINTAIN	<b>Typical Alternative Upland Cable Trench Details The Hudson Project</b>	<b>SHEET NO. 28 OF 35</b>
	At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	<b>DATE: 05/09/08</b> <b>PROJECT NO. H149-004</b>



DETAIL (a)  
(Source: Prysmian)

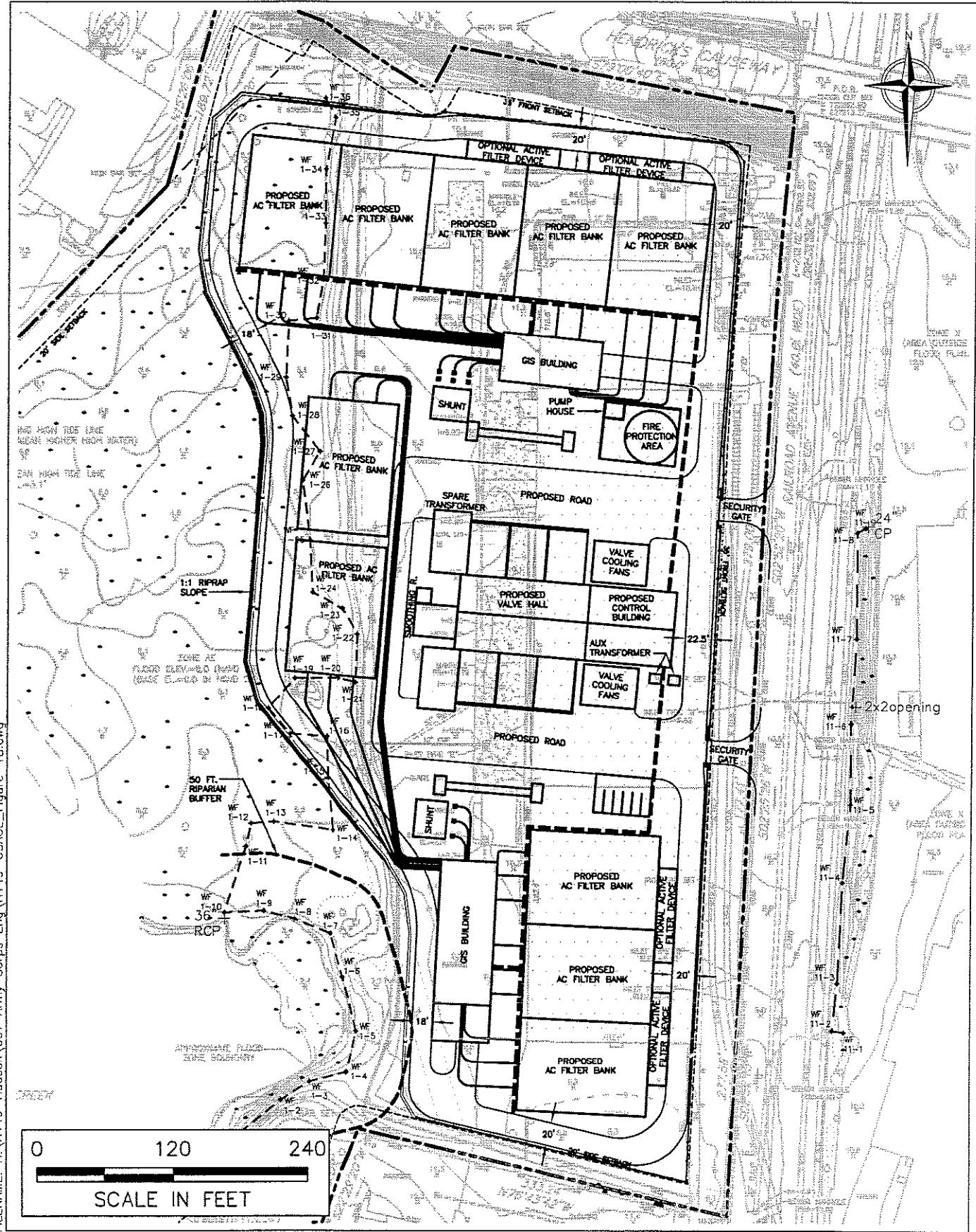


DETAIL (b)  
(Source: Prysmian)

NOTE: 1. DEPENDING UPON THE CONSTRUCTABILITY OF THE AREA, AND FINAL LOCATION OF EXISTING UTILITIES, IT IS ESTIMATED THAT EITHER 3 BOREHOLES OF APPROXIMATELY 20"-26"[SEE DETAIL (a)], OR ONE BOREHOLE OF APPROXIMATELY 48"-50"[SEE DETAIL (b)] WILL BE USED.

Purpose: AUTHORIZE AND MAINTAIN	<b>Horizontal Directional Drill Conduit Configuration The Hudson Project</b>	<b>SHEET NO. 29 OF 35</b>
	At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	<b>DATE: 05/09/08</b> <b>PROJECT NO. H149-004</b>

DATE: May 08, 2008 - 11:07AM  
FILENAME: H:\H149-Hudson\007 Army Corps Eng\H149-USACE\_Figure-18.dwg



Engineers  
Scientists  
Consultants

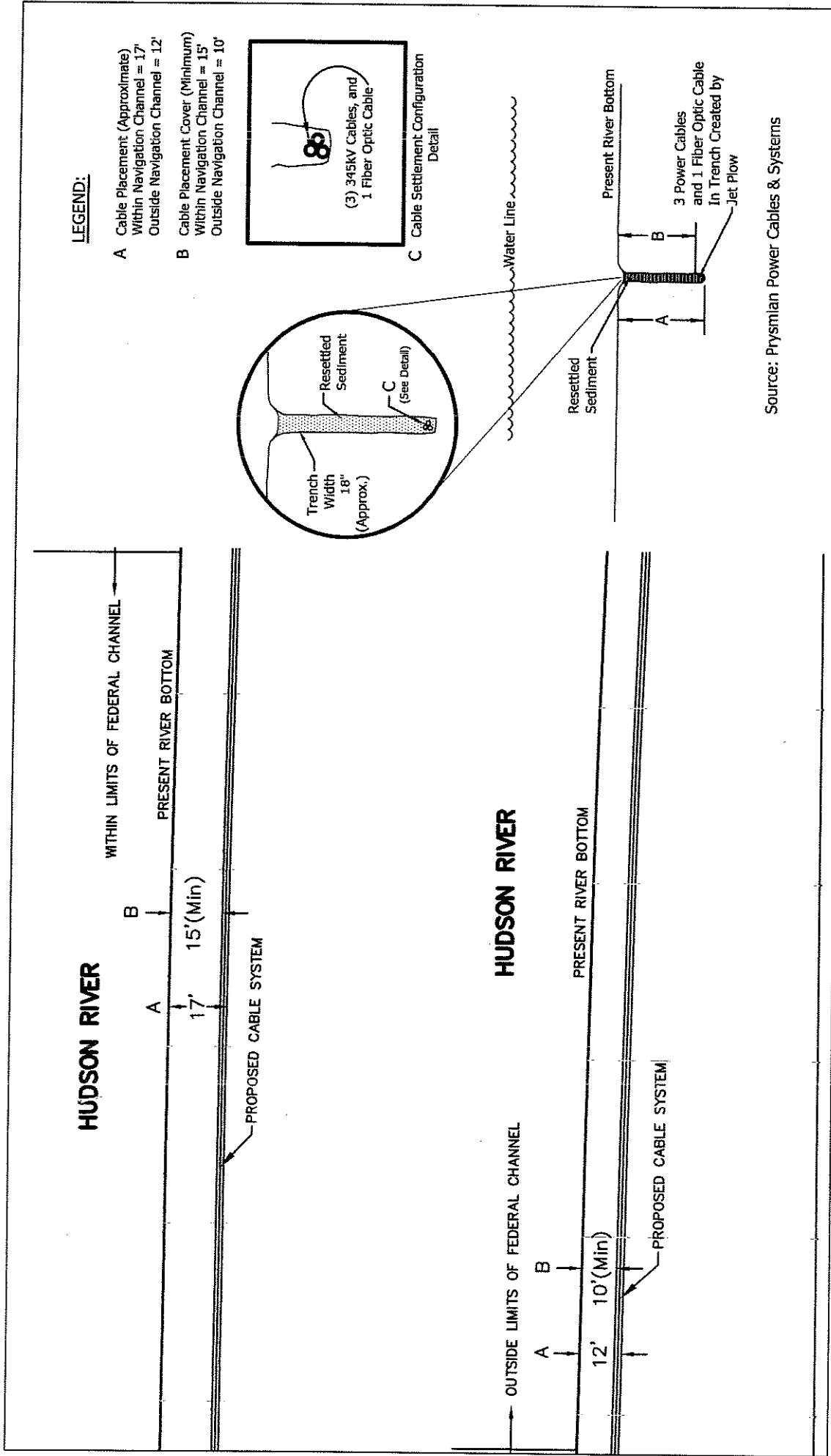
Hudson Transmission Partners, LLC  
The Hudson Project

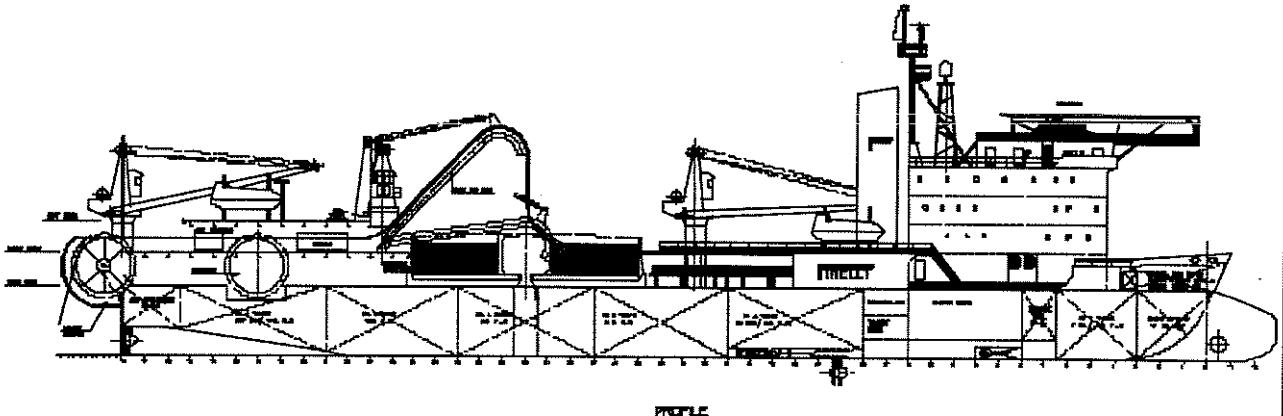
Source: Converter station layout provided by  
Siemens Power Transmission and Distribution  
Scale: 1"=120'

Proposed Converter Station  
Ridgefield, New Jersey

Sheet 30  
of 35  
NAN-2008-732-EJE

Figure  
18





Owner: Pirelli

Flag: Italian

Class: R.I.NA 100-A-1.1-Nav IL; Pcv

Special Notations: IAQ-1;IPD-3;

Special Purpose Ship

Tonnages: Gross 10,617 Net 3,185

Built in Korea 1984

#### Main Characteristics

LOA: 133.18m (436.94ft)

Beam: 30.48m (100ft)

Depth (mld): 7.62m (25ft)

Deadweight: 8,840 tons

Draft (at max load): 8.50m (28ft)

Light Draft: 8,004 tons

Berthing: Crew: 18 - 40      Technicians and Representatives: 50 max

Cruising speed: 9 - 10 knots



#### Machinery

Main propulsion thrusters,

Aft, 2-1250kw Azimuth fixed pitch

Forward, 2-1250kw Azimuth retractable Fixed Pitch

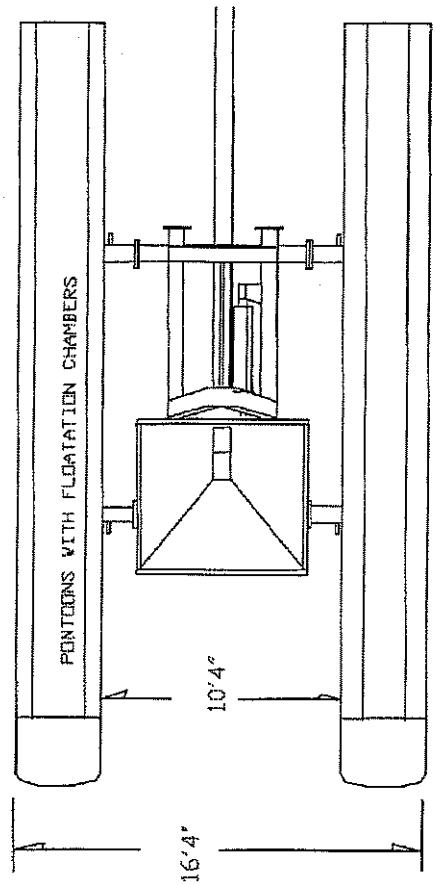
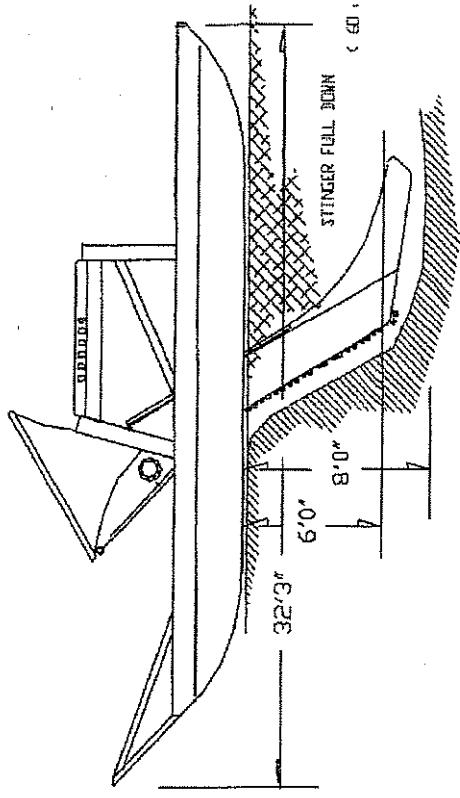
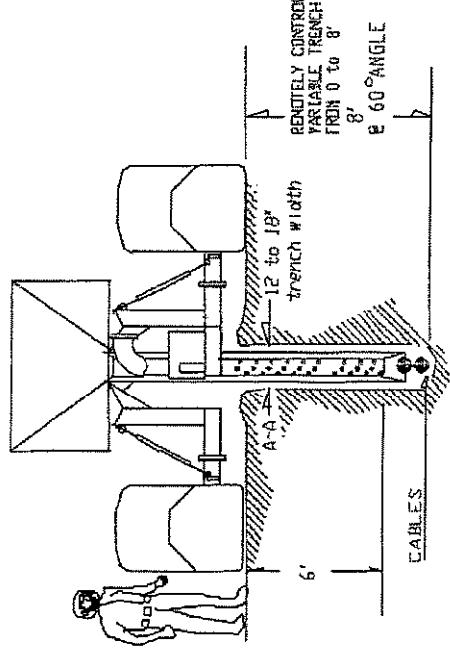
Bulb, 1-710kw Tunnel thruster

Cranes: 4-Asea (hook cap. 25tons @ 22m), 1-Store Davit (electric-2 tons)

1-Sormec (13tons @ 6m)

Aux. Gen Sets: 5-Daihatsu diesel

DATE: Apr 30, 2008 - 10:14AM  
FILENAME: H:\H149-Hudson\007 Army Corps Eng\H149-USACE\_Figure-14.dwg



DATE: Mar 12, 2008 - 3:29PM  
FILENAME: H:\H149-Hudson\007 Army Corps Eng\H149-USACE\_Figure-15.dwg

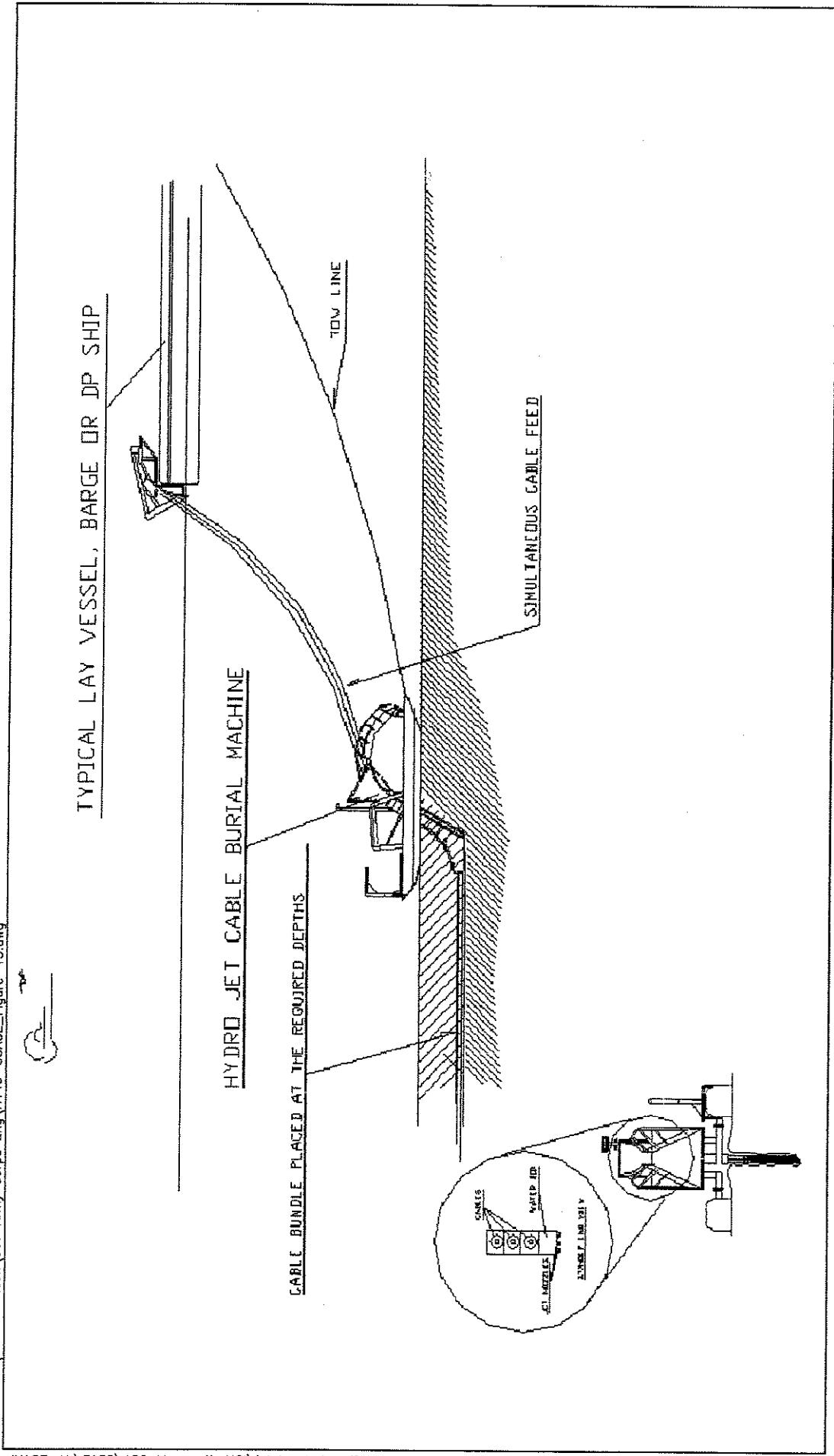
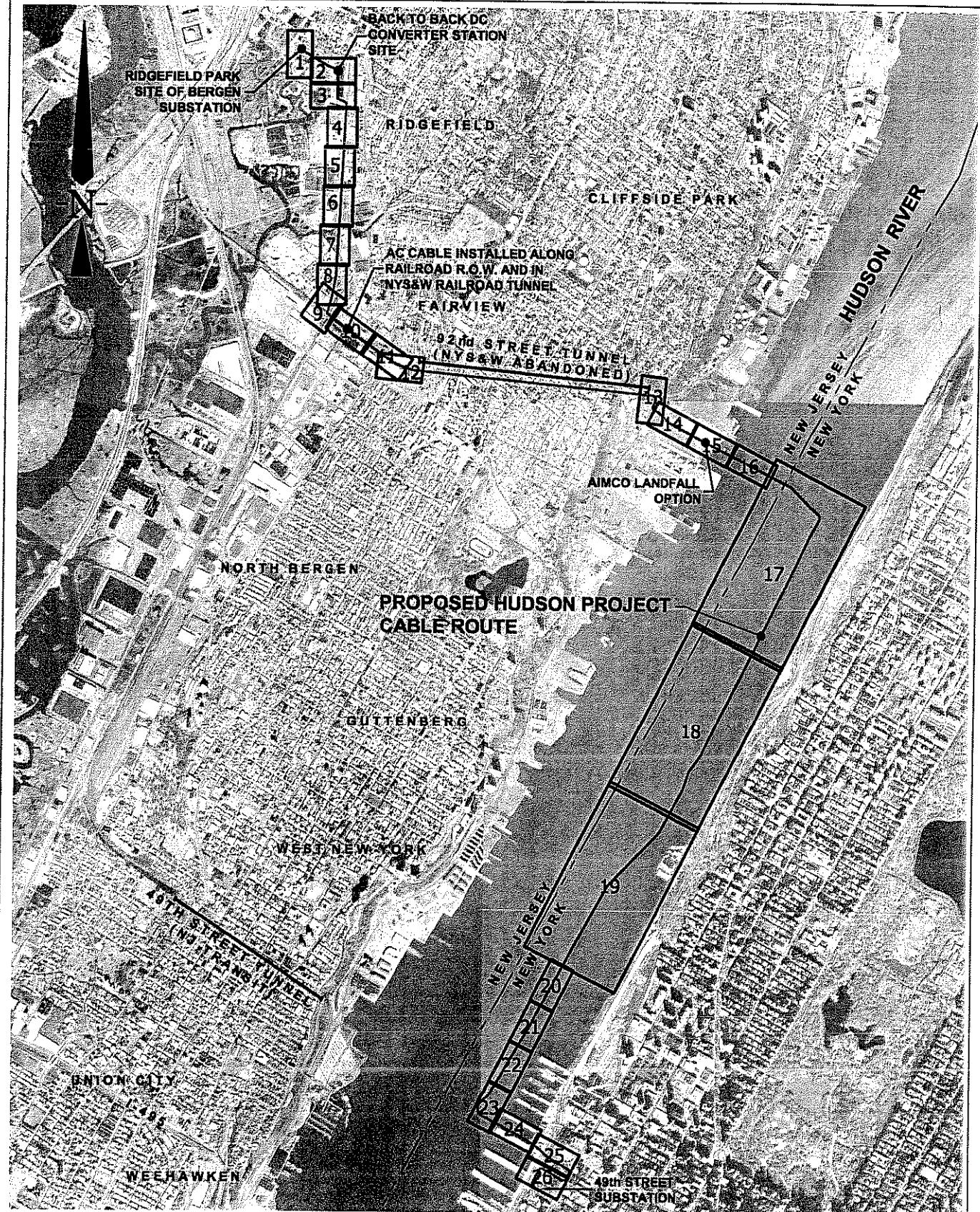


IMAGE: H:\E159\109-Yarmouth NOI\jetplowphotos.gif

Prysmian Hydro Jet Plow  
Towing Arrangement During Installation

Hudson Transmission Partners, LLC  
The Hudson Project



Purpose:	<b>Proposed Cable System Plan The Hudson Project</b> Area of USACE Jurisdiction: At: Ridgefield, Fairview, Edgewater, New Jersey & New York City, New York In: Bellman's Creek and Hudson River Applicant: Hudson Transmission Partners, LLC	<b>SHEET NO. LOCUS</b> <b>DATE: 05/09/08</b> <b>PROJECT NO. H149-004</b>
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